CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

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ORDER R7-2013-0800
NPDES NO. CAG017001

WASTE DISCHARGE REQUIREMENTS AND GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FOR CONCENTRATED ANIMAL FEEDING OPERATIONS WITHIN THE COLORADO RIVER BASIN REGION

The following Dischargers are subject to Waste Discharge Requirements (WDRs) as set forth in this Order:

Table 1. Discharger Information

Discharger	Persons discharging wastes from a Concentrated Animal Feeding Operation or related facility in any manner that may affect the quality of the waters of the Colorado River Basin Region are hereafter referred to as "Discharger" and are subject to the terms and conditions of this Order.

Table 2. Administrative Information

This Order was adopted by the Regional Water Quality Control Board on:	June 20, 2013
This Order shall become effective on:	September 30, 2014
This Order shall expire on:	September 29, 2019

THEREFORE, IT IS HEREBY ORDERED that Order R7-2008-0800 is rescinded upon the effective date of this Order except for enforcement purposes, and, in order to meet the provisions contained in division 7 of the Water Code (commencing with section 13000) and regulations adopted thereunder, and the provisions of the Clean Water Act (CWA) and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order. This action does not prevent the California Regional Water Quality Control Board, Colorado River Basin Region (Regional Water Board) from taking enforcement action for past violations of the previous Order. If any part of this Order is subject to a temporary stay of enforcement, unless otherwise specified, the Discharger shall comply with the analogous portions of the previous Order, which shall remain in effect for all purposes during the pendency of the stay.

I, Robert Perdue, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of the Order adopted by the California Regional Water Quality Control Board, Colorado River Basin Region, on June 20, 2013.

Robert Perdue, Executive Officer

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I. DISCHARGE INFORMATION

The National Pollutant Discharge Elimination System (NPDES) regulations define animal feeding operations (AFOs) as operations where animals have been, are, or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12-month period, and where vegetation is not sustained in the confinement area during the normal growing season [40 C.F.R. § 122.12(b)(1)]. There are approximately 31 AFOs in the Colorado River Basin Region. These AFOs include dairies, feedlots, heifer ranches and calf nurseries. All of these facilities are located in the Imperial Valley.

The NPDES regulations define a concentrated animal feeding operation (CAFO) as any AFO that either meets a certain animal population threshold, or, regardless of population, is determined to be a significant contributor of pollutants to waters of the United States by the appropriate authority [40 C.F.R. § 122.23(b)(2)]. All existing AFOs in the Colorado River Basin Region meet the federal regulatory size thresholds to be defined as Large CAFOs. The Clean Water Act (CWA) states that all CAFOs are point sources, and thus discharges from CAFOs are subject to NPDES permitting requirements. CAFOs in the Colorado River Basin Region that discharge wastes to waters of the U.S. are subject to the requirements of this Order.

II. NOTIFICATION REQUIREMENTS

A. General Permit Application and Coverage

1. To obtain coverage under this Order, the Discharger must submit the items identified below:

Discharger Type	Required Submittals	Submittal Deadline
Dischargers previously authorized to discharge wastes under Order R7-2008-0800	• Notice of Intent (NOI) Form for Existing Enrollees. • Additional submittals required if: ○ Discharger proposes to apply manure to land. In this case a Nutrient Management Plan (NMP) is required. ○ Previously-submitted Engineered Waste Management Plan (EWMP) does not reflect current operating conditions. In this case a revised EWMP is required.	• NOI: September 30, 2014[a] • NMP (if applicable): September 30, 2014[a] • EWMP (if applicable): September 30, 2014
Dischargers not previously authorized to discharge wastes under Order R7-2008-0800	• Completed NOI Form (Form 2B) • First annual fee • EWMP • Any other information deemed necessary by the Executive Officer • NMP (if Discharger is currently applying or proposes to apply manure to land)	Case 1 (No proposed land application of manure) • at least 30 days before the start of coverage under this permit Case 2 (Proposed or existing land application of manure) • at least 90 days before the start of coverage under this permit
a. Note, however, that Dischargers may not land apply manure, litter, or process wastewater except in accordance with the terms of an approved NMP. The process to review NMPs, develop terms, and make them available for public comment prior to NMP approval could last up to 90 days from the date the NMP is submitted.		

2. Dischargers previously authorized to discharge wastes under Order R7-2008-0800 must submit an NOI to be enrolled under this Order, unless they file an application to be covered under an individual Order or submit a request to terminate their enrollment under the Permit. For existing dischargers that propose to apply manure to land, the Executive Officer will provide the Discharger with a written authorization to discharge wastes from the CAFO in accordance with these waste discharge requirements (WDRs) upon review and approval of the Discharger's NMP, including all required public notification procedures.

3. For Dischargers not previously authorized to discharge wastes under Order R7-2008-0800, if the discharge meets the requirements of this Order, the Executive Officer will provide the Discharger with a written authorization to discharge wastes from the CAFO in accordance with these WDRs.

4. The NOI shall include the name, address, and telephone number of the operator and the landowner.

a. The NOI for new Enrollees shall also include the name and address of the facility, the animal population, and the size (acres) of existing ponds, corrals and wastewater disposal areas. The NOI form is available on the internet at http://www.epa.gov/npdes/pubs/cafo_fedregstr_form2b.pdf. A hard copy of the NOI form can be obtained from the Regional Water Board Office at the address below.

b. The NOI for existing Enrollees shall also include the name and address of the facility, and information certifying that the NOI information previously submitted has not changed or updated information to replace previously-submitted NOI information that is no longer accurate. The NOI form for existing Enrollees is included in Attachment K.

5. All required submittals shall be submitted to the California Regional Water Quality Control Board, Colorado River Basin Region (hereinafter, Regional Water Board), at the following address:

California Regional Water Quality Control Board
Colorado River Basin Region
73-720 Fred Waring Drive, Suite 100
Palm Desert, CA 92260

6. CAFOs and AFOs that do not discharge wastes to waters of the U.S., or whose discharges are composed entirely of agricultural stormwater as specified in section VII.C.3.b.(i) of this Order and as defined in section 122.23(e), title 40 of the Code of Federal Regulations[1], are generally not required to obtain authorization under this Order. However, such facilities may not discharge wastes that could affect water quality, or cause a condition of pollution or nuisance, as defined in the California Water Code (CWC), section 13050, subdivisions (l) and (m), respectively.

[1] All further statutory references are to title 40 of the Code of Federal Regulations unless otherwise indicated.

B. Exclusion of Coverage

Where a Discharger submits a completed NOI together with other information as described in section A above (General Permit Application and Coverage) for a discharge that does not meet the requirements of this Order, individual waste discharge requirements may be developed for consideration by the Regional Water Board.

The Executive Officer of the Regional Water Board may require any person authorized to discharge wastes by this Order to subsequently apply for and obtain individual waste discharge requirements. Any interested person may petition the Regional Water Board to take action in accordance with this finding. Cases where individual waste discharge requirements may be required include the following:

1. The Discharger is not in compliance with the conditions of this Order or the discharge authorization letter from the Executive Officer;

2. Effluent limitation guidelines (ELGs) are promulgated for point sources covered by the general NPDES permit;

3. Changes to the Basin Plan containing requirements applicable to such point sources are approved;

4. The requirements of section 122.28(a) are not met; or

5. The discharge may adversely affect the water quality objectives of the receiving water.

C. Termination of Discharges

Upon ceasing operation at the CAFO, the Discharger shall ensure that the CAFO has been cleaned out so that there will be no discharge of manure, litter or process wastewater. The standard cleaning procedures may include, but are not limited to, scraping all the manure off the corral areas, and filling in the containment pond(s) with clean dirt. The Discharger shall then submit a written request to terminate enrollment under the Permit to the Regional Water Board. Once the Regional Water Board determines that the facility no longer poses a threat to water quality, the Regional Water Board will issue a Notice of Termination (NOT) to the Discharger.

III. FINDINGS

The Regional Water Board finds:

A. Legal Authorities. On June 8, 1989, pursuant to section 122.28, the State Water Resources Control Board (State Water Board) applied to the United States Environmental Protection Agency (USEPA), Region IX, for revisions of its approved NPDES Permit program in accordance with sections 123.62 and 403.10. The application included a request to add general permit authority to that program. On September 22, 1989, USEPA, Region IX, approved the State Water Board's request and granted authorization for the State's issuance of general NPDES permits.

On September 22, 1989, a Memorandum of Agreement[2] executed by USEPA and the State Water Board authorized and established procedures for the State Water Board to issue general NPDES permits pursuant to NPDES regulations at sections 122.28 and 122.44.

This Order is issued pursuant to section 402 of the federal CWA and implementing regulations adopted by USEPA and Chapter 5.5, Division 7 of the California Water Code (commencing with section 13370). It shall serve as a general NPDES permit for point source discharges from CAFOs to surface waters. This Order also serves as WDRs pursuant to Article 4, Chapter 4, Division 7 of the Water Code (commencing with section 13260).

Revised regulations governing discharges from CAFOs are contained in division 2, title 27 of the California Code of Regulations. Chapter 7, subchapter 2, article 1 (commencing with section 22560) contains requirements for Confined Animal Facilities. Previously, these regulations were specified in chapter 15, division 3, article 6, title 23 of the California Code of Regulations.

Regulations published by the USEPA on February 12, 2003 (Part 122, as revised November 20, 2008, and July 30, 2012, and Parts 123 and 124) require an NPDES permit for pollutant discharges from CAFOs. The USEPA's ELGs for CAFOs are contained in Part 412 (revised November 20, 2008).

B. Background and Rationale for Requirements. The Regional Water Board developed the requirements in this Order based on the previous Order (R7-2008-0800), revised federal regulatory requirements, information obtained during a public workshop on the revised Order, and other available information. The Technical Standards for Nutrient Management (Attachment C) are based on those contained in the previous Order as well as standards developed by the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) and recommendations from the University of California Cooperative Extension. The Fact Sheet (Attachment F), which contains background information and rationale for Order requirements, is hereby incorporated into this Order and constitutes part of the Findings for this Order. Attachments A through E and G through J are also incorporated into this Order.

C. Provisions and Requirements Implementing State Law. The provisions in subsections IV.C, IV.G, IV.H, IV.I, VI, VII.C.3.c, VII.C.3.d, and VII.C.4 of the Order and VIII, IX.E, IX.F, X.E and XI.E of the MRP of this Order are included to implement state law only. These provisions are not required or authorized under the federal CWA. Consequently, violations of these provisions are not subject to the enforcement remedies that are available for NPDES violations; instead, they are subject to the enforcement remedies under the Porter-Cologne Water Quality Control Act (CWC section 13000 et seq.) and other state law.

[2] Link to Memorandum of Agreement – http://www.waterboards.ca.gov/water_issues/programs/npdes/docs/aquatic/moa.pdf

D. Notification of Interested Parties. The Regional Water Board has notified existing Enrollees and interested agencies and persons of its intent to prescribe Waste Discharge Requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of notification are provided in the Fact Sheet of this Order.

E. Consideration of Public Comment. The Regional Water Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the Public Hearing are provided in the Fact Sheet of this Order.

IV. DISCHARGE PROHIBITIONS

A. The discharge shall not cause degradation of any water supply.

B. The discharge of any substances in concentrations toxic to animal or plant life is prohibited.

C. The direct and indirect discharge of waste to any surface water bodies or tributaries thereof is prohibited, except as specifically provided for in the Effluent Limitations section of this Order (section V). This discharge prohibition includes discharging wastes into surface waters via tile drainage lines. This prohibition does not include, however, discharging overflow water from animal watering facilities, where the overflow is collected and diverted from manured areas in a closed system that prevents the overflow from contacting manure, feed, or other raw materials or other process wastewater prior to discharge, and where animals do not contact the overflow in any way that would cause manure or other wastes to be added.

D. All animals within a CAFO facility shall be prohibited from having direct contact with waters of the United States. The Discharger shall develop and implement appropriate controls to prohibit all animals at the CAFO from entering any surface water within the production area.

E. The disposal of any mortality in any process wastewater system that is not specifically designed to treat animal mortalities is prohibited. Mortalities shall be handled and disposed of in such a way as to prevent the discharge of pollutants to waters of the state. Dead animals shall be disposed of in accordance with local laws, regulations, and ordinances.

F. The land application of manure, compost, or process wastewater for other than nutrient recycling in accordance with an approved NMP is prohibited.

G. The following prohibitions are applicable to Dischargers with composting operations on-site at the permitted facility that are not covered under individual waste discharge requirements for composting:

1. Transporting, stockpiling, composting, and processing operations shall not cause, or threaten to cause a condition of pollution or nuisance, as defined in CWC section 13050, subdivisions (l) and (m), respectively.

2. Composting, stockpiling or otherwise accepting the following materials is prohibited: demolition wastes (except demolition wood waste), mixed construction debris, contaminated/uncontaminated soil, ash, sewage sludge, septic tank pumpings, radioactive waste, industrial sludge, water treatment sludge, liquid wastes (except CAFO-generated process wastewater), animal carcasses, mammalian flesh, unprocessed/processed hide, bone marrow, hazardous waste and designated waste. These prohibitions do not include any agricultural material, food material, or green material.

H. The discharge by the Discharger of waste to land not owned or controlled by the Discharger is prohibited unless authorized in Waste Discharge Requirements or NPDES Permit.

I. The treatment or disposal of wastes from the facility shall not cause a condition of pollution or nuisance, as defined in CWC Section 13050, subdivisions (l) and (m), respectively.

J. The discharge of trash to the New River is prohibited.

V. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations Applicable to the Production Area at Existing CAFOs that Confine Dairy Cows, Cattle, Swine, Poultry, and Veal Calves and at New Source[3] CAFOs that Confine Dairy Cows and Cattle Other Than Veal Calves

1. There shall be no discharge of manure, litter, or process wastewater pollutants into waters of the United States from the production area, except as provided below in section V.A.2.

2. Whenever precipitation causes an overflow of manure, litter, or process wastewater, pollutants in the overflow may be discharged into waters of the United States provided all provisions of an EWMP, approved by the Executive Officer, are fully implemented and:

a. For existing CAFOs that confine dairy cows, cattle, swine, poultry and veal calves and for new source CAFOs that confine dairy cows and cattle other than veal calves, the production area is properly designed, constructed, operated and maintained to contain all manure, litter, process wastewater and the runoff and direct precipitation from a 25-year, 24-hour storm event for the location of the CAFO.

b. The design storage volume shall reflect the following:

i. all wastes accumulated during the storage period, consistent with manure, litter, or process wastewater removal schedules in the Discharger's approved NMP, if applicable;

[3] See the definition of "new source" included in Attachment A.

ii. normal precipitation less evaporation during the storage period;

iii. normal runoff during the storage period;

iv. the direct precipitation from a 25-year, 24-hour storm event;

v. the runoff from the 25-year, 24-hour storm event from the production area;

vi. residual solids after liquid has been removed;

vii. necessary freeboard to maintain structural integrity, in accordance with section VII.C.3.a.i(a); and

viii. in the case of treatment lagoons, a minimum treatment volume.

c. The production area is operated in accordance with the additional measures specified in section V.C.1 of this permit, "Additional Measures Applicable to the Production Area," at CAFOs that confine dairy cows, cattle, swine, poultry, and veal calves and in Discharge Prohibition IV.E.

d. The Discharger maintains the records specified in section V.C.1 of this Order and section X.C (Operation and Maintenance Records) of the Monitoring and Reporting Program (Attachment E) of this Order.

B. Effluent Limitations Applicable to the Production Area at New Source[4] CAFOs that Confine Swine, Poultry, and Veal Calves

For new source CAFOs that confine swine, poultry, or veal calves, there shall be no discharge of manure, litter, or process wastewater pollutants into waters of the United States from the production area, subject to subsections 1 and 2 of this section V.B.

1. Any Discharger whose CAFO is subject to this section V.B may request that the Executive Officer suggest best management practices to help ensure no discharge of manure, litter, or process wastewater occurs, based upon a site-specific evaluation of the CAFO's open surface manure storage structure. The best management practice effluent limitations must address the CAFO's entire production area. Where the Executive Officer establishes such effluent limitations for an open surface manure storage structure, "no discharge of manure, litter, or process wastewater pollutants," as used in this section, means that the storage structure is designed, operated, and maintained in accordance with site-specific best management practices established by the Executive Officer after a technical evaluation of the storage structure. The technical evaluation must address the following elements:

a. Information to be used in the design of the open manure storage structure including, but not limited to, the following:

[4] See the definition of "new source" included in Attachment A.

- minimum storage periods for rainy seasons;
- additional minimum capacity for chronic rainfalls;
- applicable technical standards that prohibit or otherwise limit land application to frozen, saturated, or snow-covered ground;
- planned emptying and dewatering schedules consistent with the CAFO's NMP;
- additional storage capacity for manure intended to be transferred to another recipient at a later time; and
- any other factors that would affect the sizing of the open manure storage structure.

b. The design of the open manure storage structure as determined by the most recent version of NRCS's Animal Waste Management (AWM) software. CAFOs may use equivalent design software or procedures as approved by the Executive Officer.

c. All inputs used in the open manure storage structure design including:

- actual climate data for the previous 30 years consisting of historical average monthly precipitation and evaporation values;
- the number and types of animals;
- anticipated animal sizes or weights;
- any added water and bedding;
- any other process wastewater; and
- the size and condition of outside areas exposed to rainfall and contributing runoff to the open manure storage structure.

d. The planned minimum period of storage in months including, but not limited to, the factors for designing an open manure storage structure listed in subsection 1.a of this section V.B. Alternatively, the CAFO may determine the minimum period of storage by specifying times the storage pond will be emptied consistent with the CAFO's NMP.

e. Site-specific predicted design specifications including:

- dimensions of the storage facility;
- daily manure and wastewater additions;

- the size and characteristics of the land application areas;
- and the total calculated storage period in months.

f. An evaluation of the adequacy of the designed manure storage structure using the most recent version of the Soil Plant Air Water (SPAW) Hydrology Tool.[5] The evaluation must include all inputs to SPAW including but not limited to:

- daily precipitation, temperature, and evaporation data for the previous 100 years;
- user-specified soil profiles representative of the CAFO's land application areas;
- planned crop rotations consistent with the CAFO's NMP; and
- the final modeled result of no overflows from the designed open manure storage structure.

Where 100 years of local weather data for a CAFO's location is not available, the CAFO may use a simulation with a confidence interval analysis conducted over a period of 100 years. The Executive Officer may approve equivalent evaluation and simulation procedures.

g. The Executive Officer may waive the requirement of subsection 1.f for a site-specific evaluation of the designed manure storage structure and instead authorize a CAFO to use a technical evaluation developed for a class of specific facilities within a specified geographical area.

h. Waste management and storage facilities designed, constructed, operated, and maintained consistent with the analysis conducted in subsections 1.a through 1.g of this section V.B and operated in accordance with the additional measures and records required by section V.C.1 of this permit, "Additional Measures Applicable to the Production Area," at CAFOs that confine dairy cows, cattle, swine, poultry, and veal calves, and Discharge Prohibition IV.E, will fulfill the requirements of this section.

i. The Executive Officer has the discretion to request additional information to support a request for effluent limitations based on a site-specific open surface manure storage structure.

2. The production area must be operated in accordance with the additional measures and records required by section V.C.1 of this permit, "Additional Measures Applicable to the Production Area," at CAFOs that confine dairy cows, cattle, swine,

[5] The SPAW tool can be downloaded from USDA Agricultural Research Service's web site: http://hydrolab.arsusda.gov/SPAW/SPAWDownload.html

poultry, and veal calves, and Discharge Prohibition IV.E, will fulfill the requirements of this section.

C. Additional Measures Applicable to CAFOs that Confine Dairy Cows, Cattle, Swine, Poultry, and Veal Calves

In addition to the requirements in sections V.A or V.B of this Order, the Discharger shall implement the following additional measures.

1. Additional Measures Applicable to the Production Area

a. Weekly visual inspections of all storm water diversion devices, runoff diversion structures, and devices channeling contaminated storm water to the wastewater and manure storage and containment structure.

b. Daily visual inspections of all water lines, including drinking water or cooling water lines.

c. Weekly inspections of the manure, litter, and process wastewater impoundments noting the level as indicated by a depth marker installed in all open surface liquid impoundments. Each depth marker shall clearly indicate the minimum capacity necessary to contain the runoff and direct precipitation of the 25-year, 24-hour rainfall event or, for new source swine, poultry or veal calf CAFOs, other design storm event used in sizing the impoundment for no discharge in accordance with the requirements of section V.B, for the location of the permitted CAFO.

d. Timely correction of any deficiencies that are identified in daily and weekly inspections.

e. The maintenance of complete on-site records documenting implementation of all required additional measures for a period of 5 years, including the applicable records specified in section X.C (Operation and Maintenance Records) of the Monitoring and Reporting Program (Attachment E) of this Order.

2. Additional Measures Applicable to the Land Application Area

a. The Discharger shall develop, prepare and implement an NMP in accordance with the requirements specified below and in section VII.C.3.b of this Order, and in compliance with the Technical Standards for Nutrient Management specified in Attachment C of this Order.

b. The Discharger shall comply with the following requirements based on a field-specific assessment of the potential for nitrogen and phosphorus transport from the field and that addresses the form, source, amount, timing, and method of application of nutrients on each field to achieve realistic production goals, while minimizing nitrogen and phosphorus movement to surface waters. These requirements shall be incorporated into the Discharger's NMP.

i. **Determination of application rates.** Application rates for manure, litter, or process wastewater are to be developed that minimize phosphorus and nitrogen transport from the field to surface waters in compliance with the Technical Standards for Nutrient Management (Attachment C).

ii. **Manure and soil sampling.** Manure, litter, and process wastewater shall be analyzed a minimum of once annually for nitrogen and phosphorus content and soil analyzed a minimum of once every 5 years for phosphorus content. The Discharger shall use the results of these analyses in determining application rates. Manure and soil sampling shall be conducted in compliance with the Technical Standards for Nutrient Management (Attachment C) and Monitoring and Reporting Program (Attachment E).

iii. **Inspect land application equipment for leaks.** The Discharger shall inspect equipment used for land application of manure, litter, or process wastewater. Inspections of equipment used to apply solid manure shall be made a minimum of once annually. Inspections of equipment use to apply liquid manure shall be made a minimum of once per day during application.

iv. **Setback requirements.** Unless the Discharger exercises one of the compliance alternatives provided for in subsections (a) and (b), below, of this section V.C.2.b.iv, manure, litter, process wastewater, or composting may not be applied closer than 100 feet to any down-gradient surface waters, open tile line intake structures, sinkholes, agricultural well heads, or other conduits to surface waters.

(a) Vegetated buffer compliance alternative. The Discharger may substitute the 100-foot setback with a 35-foot wide vegetated buffer where applications of manure, litter, or process wastewater are prohibited.

(b) Alternative practices compliance alternative. As a compliance alternative, the Discharger may demonstrate that a setback or buffer is not necessary because implementation of alternative conservation practices or field-specific conditions will provide pollutant reductions equivalent to or better than the reductions that would be achieved by the 100-foot setback. Any alternative practice implemented to comply with this section shall be submitted in writing for approval to the Executive Officer prior to implementation.

D. Effluent Limitations Applicable to the Production Area at CAFOs that Confine Horses, Sheep, and Ducks

1. For Horse, Sheep, and Duck CAFOs established as of February 14, 1974: There shall be no discharge of process wastewater pollutants into waters of the United States, except when all provisions of an EWMP, approved by the Executive Officer, are fully implemented and whenever rainfall events cause an overflow of process wastewater from a facility designed, constructed, operated, and maintained to

contain all process-generated wastewaters plus the runoff from a 25-year, 24-hour rainfall event at the location of the CAFO.

2. Pretreatment Standards for Duck CAFOs. Duck CAFOs shall achieve the following performance standards:

a. There shall be no introduction of process wastewater pollutants to a publicly owned treatment works (POTW).

b. Whenever rainfall events cause an overflow of process wastewater from a facility designed, constructed, operated, and maintained to contain all process-generated wastewaters plus the runoff from a 25-year, 24-hour rainfall event at the location of the Discharger, any process wastewater pollutants in the overflow may be discharged to a POTW.

E. Interim Effluent Limitations – Not Applicable

F. Land Discharge Specifications – Not Applicable

G. Reclamation Specifications – Not Applicable

VI. RECEIVING WATER LIMITATIONS

A. Surface Water Limitations

Receiving water limitations are based on water quality objectives contained in the Basin Plan and are a required part of this Order. The discharge shall not cause the following in surface receiving waters:

1. Result in the concentration of dissolved oxygen in the receiving water to fall below 5.0 mg/L. When dissolved oxygen in the receiving water is already below 5.0 mg/L, the discharge shall not cause any further depression.

2. Result in the presence of oil, grease, floating material (liquids, solids, foam and scum) or suspended material in amounts that create a nuisance or adversely affect beneficial uses.

3. Result in the deposition of pesticides or combination of pesticides detectable in concentrations that adversely affects beneficial uses.

4. Result in discoloration in the receiving water that adversely affects beneficial uses.

5. Result in the discharge of biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses.

6. Result in an increase of turbidity that adversely affects beneficial uses.

7. Result in the normal ambient pH of the receiving water to fall below 6.0 or exceed 9.0 units.

8. Result in altering the natural receiving water temperature that adversely affects beneficial uses.

9. Result in the deposition of material that causes nuisance or adversely affects beneficial uses.

10. Result in the discharge of an individual chemical or combination of chemicals in concentrations that adversely affect beneficial uses.

11. Result in toxic pollutants to be present in the water column, sediments or biota in concentrations that adversely affect beneficial uses or that produce detrimental physiological responses in human, plant, animal, or aquatic life.

12. Result in an increase in taste or odor-producing substances that adversely affect beneficial uses.

13. Result in the violation of any applicable water quality standard for receiving waters adopted by the Regional Water Board or the State Water Board as required by the federal CWA and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to CWA section 303 or amendments thereto, the Regional Water Board will revise and modify this Permit in accordance with such more stringent standards.

14. For discharges to the New River, Alamo River, and Imperial Drains: Result in the concentration of total dissolved solids in the surface receiving water to exceed an annual average concentration of 4,000 mg/L or a maximum daily concentration of 4,500 mg/L.

15. For discharges to the Coachella Valley Drains and Palo Verde Valley Drains: Result in the concentration of total dissolved solids in the surface receiving water to exceed an annual average concentration of 2,000 mg/L or a maximum daily concentration of 2,500 mg/L.

B. Groundwater Limitations

The discharge shall not cause the underlying groundwater to be degraded, to exceed water quality objectives, to unreasonably affect beneficial uses, or to cause a condition of pollution or nuisance.

VII. PROVISIONS

A. Standard Provisions

1. **Federal Standard Provisions.** The Discharger shall comply with all Standard Provisions included in Attachment D of this Order.

2. **Regional Water Board Standard Provisions.** The Discharger shall comply with the following provisions. In the event that there is any conflict, duplication, or overlap between provisions specified by this Order, the more stringent provision shall apply:

   a. The Discharger shall comply with all conditions of this Order and all terms, conditions, and limitations specified in the Discharge Authorization Letter issued by the Executive Officer. Noncompliance constitutes a violation of the federal CWA and/or Porter-Cologne Water Quality Control Act, and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification of waste discharge requirements; or denial of a permit renewal application.

   b. The Discharger shall ensure that all site-operating personnel are familiar with the content of this Order, and shall maintain a copy of this Order at the site.

   c. Prior to any change in ownership or management of the permitted operation, the Discharger shall transmit a copy of this Order to the succeeding owner/operator, and forward a copy of the transmittal letter to the Regional Water Board. Further, the Discharger shall notify the succeeding owner/operator of the requirements to obtain coverage under this General Permit (including the submittal of a new NOI and other required application submittals) and the Discharger shall submit a NOT to the Regional Water Board to indicate termination of permit coverage under the existing ownership of the CAFO.

   d. This Order does not authorize violation of any federal, state, or local laws or regulations.

   e. Failure to comply with provisions or requirements of this Order, or violation of other applicable laws or regulations governing discharges from this facility, may subject the Discharger to administrative or civil liabilities, criminal penalties, and/or other enforcement remedies to ensure compliance. Additionally, certain violations may subject the Discharger to civil or criminal enforcement from appropriate local, state, or federal law enforcement entities.

B. Monitoring and Reporting Program (MRP) Requirements

The Discharger shall comply with the MRP and future revisions thereto, in Attachment E of this Order. This MRP may be modified by the Executive Officer at any time during the term of this Order, and may include an increase in the number of parameters to be monitored, the frequency of the monitoring or the number and size of samples to be collected or minor clarifications on MRP requirements. Any increase in the number of parameters to be monitored, the frequency of the monitoring or the number and size of samples to be collected may be reduced back to the levels specified in the original MRP at the discretion of the Executive Officer. The Executive Officer may also determine the need to conduct additional monitoring on a case-by-case basis, as indicated in section VII.C of this Order.

C. Special Provisions

1. Reopener Provisions

a. This Order may be modified, rescinded and reissued, for cause. The filing of a request by the Discharger for an Order modification, rescission and reissuance, or a notification of planned changes or anticipated noncompliance does not stay any Order condition. Causes for modification include the promulgation of new regulations, modification of land application plans, or modification in sludge use or disposal practices, or adoption of new regulations by the State Water Board or the Regional Water Board, including revisions to the Basin Plan.

b. TMDLs for pathogens, pesticides, metals, dissolved oxygen, nutrients, and salt are to be developed by the Regional Water Board. The permit may be reopened and modified in the future to include appropriate requirements necessary to fully implement the approved TMDLs if needed.

2. Special Studies, Technical Reports and Additional Monitoring Requirements – Not Applicable

3. Best Management Practices and Pollution Prevention

a. Best Management Practices

i. The Discharger shall ensure adequate storage of manure, litter, and process wastewater, including procedures to ensure proper operation and maintenance of the storage facilities. The Discharger shall develop and implement specific practices and operate and maintain associated structures to ensure adequate storage capacity to achieve permit limitations including:

(a) Maintain sufficient capacity in liquid manure, wastewater, or storm water storage structures to ensure compliance with all permit requirements, including:

- A minimum freeboard of two (2) feet for earthen-lined, above-grade storage structures and one (1) foot for synthetic-lined or below-grade storage structures shall be maintained at all times in the ponds.
- Following a storm event, the Discharger shall restore the wastewater holding capacity of retention ponds in a timely manner, consistent with the applicable provisions of the approved NMP and section VII.C.5.a (Transfer of Manure, Litter, and Process Wastewater) of this Order.

(b) Store raw manure in production buildings or in storage facilities or otherwise store it in such a way as to prevent polluted runoff.

(c) Remove manure and compostable material from the facility or land apply manure or compostable material in accordance with the facility's NMP within 180 days. Any manure or compostable material remaining at the facility after 180 days of being removed from the corrals is considered to be disposal[6] of manure or compostable material and is prohibited in accordance with section IV.F and Title 14, Division 7, Chapter 3.1 of the California Code of Regulations and by Imperial County Ordinance, Title 9.

- Large CAFOs shall prepare a manifest of the manure hauled away for each hauling event (Attachment H). The annual report prepared in accordance with Monitoring and Reporting Program No. R7-2013-0800 shall include a certification that a Manure Tracking Manifest was prepared for each manure hauling event.
- The Discharger shall be responsible for appropriate disposal of manure from the property over the 180-day period following removal of the manure from corrals. This means that disposal shall be coordinated with periods of rainfall such that manure can be removed from the facility within 180 days of being scraped from corrals.
- The Discharger may submit a written request to the Executive Officer for approval to authorize a longer storage time of manure or compostable material in the event that unforeseen circumstances justify a longer storage time. The Discharger must also seek concurrence with Imperial County for authorization of a longer storage time of manure or compostable material.

(d) Provide adequate storage capacity to ensure compliance with the Technical Standards for Nutrient Management (Attachment C), if applicable, and to meet the applicable effluent limitations of section V of this Order.

(e) Ensure proper operation and maintenance of all manure, litter, and storm water storage facilities, including all applicable operation and maintenance requirements specified in section VII.C.4 of this Order.

ii. The Discharger shall ensure that clean water is diverted, as appropriate, from the production area. Clean water includes rain falling on roofs of facilities, runoff from adjacent land, and other sources.

(a) If clean water is not diverted from coming into contact with manure, litter, process wastewater, raw materials, products, or by-products including feed, milk, eggs, or bedding, it shall be contained in accordance with permit requirements and the retention structures shall include adequate storage capacity for the undiverted water in accordance with the applicable requirements of section VII.C.3.a.i of this Order.

[6] Disposal is defined in Section 17852(a)(15) of Title 14, CCR

(b) All new roofs, buildings, and non-manured areas located on the CAFO shall be constructed or otherwise designed so that clean rainwater is diverted away from the sources of animal manure and waste containment facilities.

iii. The Discharger shall ensure that chemicals and other contaminants handled on-site are not disposed of in any manure, litter, process wastewater, or storm water storage or treatment system unless specifically designed to treat such chemicals or contaminants. The Discharger shall develop and implement controls to prevent the inappropriate introduction of chemicals into the manure, wastewater, and storm water storage and handling system. Examples include pesticides, hazardous and toxic chemicals, and petroleum products and by-products.

iv. The Discharger shall identify appropriate site specific conservation practices to be implemented, including as appropriate buffers or equivalent practices to control runoff of pollutants from the production area to waters of the United States.

b. Nutrient Management Plan (NMP)

Dischargers who apply manure, litter, or process wastewater to land under their control shall develop and fully implement an approved, site-specific NMP in addition to the EWMP. The NMP shall be prepared in accordance with section V.C.2 of this Order, and shall follow the guidelines included in Attachment C, Technical Standards for Nutrient Management. The Discharger shall also comply with the recordkeeping requirements described in sections X.B and X.D of the MRP.

i. There shall be no discharge of manure, litter, or process wastewater to a water of the United States from a CAFO as a result of the application of manure, litter, or process wastewater to land areas under the control of the CAFO, except where it is an agricultural storm water discharge. Where manure, litter, or process wastewater has been applied in accordance with a site-specific NMP, as specified in this section VII.C.3.b, consistent with 40 C.F.R. § 122.23(e), a precipitation related discharge of manure, litter, or process wastewater from land application areas under the control of the CAFO is considered to be an agricultural storm water discharge.

ii. The Discharger shall develop and implement site-specific conservation practices that are sufficient to minimize the discharge of pollutants to waters of the United States. These practices many include, but are not limited to residue management, conservation crop rotation, grassed waterways, strip cropping, vegetated buffers, riparian buffers, setbacks, terracing, and diversions. The following specific measures shall be implemented:

(a) The land application setbacks or compliance alternatives specified in section V.C.2.b.iv of this Order.

(b) Manure applied to cultivated cropland shall be incorporated into soil soon after application or appropriate containment (based on the specific crop grown) shall be provided.

(c) Land application areas that receive dry manure shall be managed through implementation of erosion control measures to minimize erosion and shall be consistent with the NMP.

(d) All process wastewater applied to land application areas shall infiltrate completely within 72 hours after application.

(e) Process wastewater shall not be applied to land application areas during periods when the soil is at or above field moisture capacity unless consistent with the NMP.

(f) For irrigated land application areas, there shall be no runoff from the field from the first irrigation after manure application and before planting.

iii. The Discharger shall identify protocols for appropriate testing of manure, litter, process wastewater, and soil.

(a) The Discharger shall identify and implement specific manure, wastewater, and soil sample collection and analysis protocols to be used in developing and implementing the NMP required in sections V.C.2.a and VII.C.3.b of this Order.

(b) At a minimum, the protocol shall specify the collection and analysis of manure, litter, process wastewater and soil as follows, in accordance with sections IX.C and IX.D of the MRP:

Material Analyzed	Parameter(s)	Minimum Frequency
Manure, litter, process wastewater	• Ammonium nitrogen • Total Kjeldahl nitrogen • Total phosphorus • pH	Annually
Soil	• Soluble phosphorus • pH	Once every 5 years for all fields under the control of the Discharger where manure, litter and process wastewater may be applied

(c) In all cases the sampling protocols for manure, litter, process wastewater, and soil shall be consistent with the Technical Standards for Nutrient Management (Attachment C).

iv. The Discharger shall develop and implement protocols to land apply manure, litter, and process wastewater in accordance with the Technical Standards for

Nutrient Management (Attachment C). Land application rates shall be consistent with the following:

(a) Land application of wastes for nutrient recycling from existing CAFOs shall not cause the underlying groundwater to contain any waste constituent, degradation product, or any constituent of soil mobilized by the interactions between applied wastes and soil or soil biota, to exceed the groundwater limitations set forth in this Order.

(b) The application of waste to cropland shall be at rates that preclude development of vectors or other nuisance conditions and meet the conditions of the NMP.

(c) Discharge of wastewater to disposal lands shall not result in surface runoff from disposal lands and shall be managed to minimize percolation to the groundwater.

(d) The NMP shall include the following information, which shall become site-specific terms of the approved NMP and incorporated into the Discharger's permit by reference in accordance section VII.C.3.b.ix:

- The maximum amounts of plant available nitrogen and phosphorus derived from all sources of nutrients, for each crop identified in the NMP, in pounds per acre, for each field.

- The outcome of the phosphorus risk transport assessment conducted for each field in accordance with the Technical Standards for Nutrient Management in Attachment C.

- The crops to be planted in each field or any other uses such as pasture or fallow fields. The NMP may include alternative crops that are not in the planned crop rotation. Alternative crops, where included, must be listed by field.

- Realistic yield goal for each crop and alternative crop, if included, or use identified for each field, determined in accordance with the Technical Standards for Nutrient Management in Attachment C.

- The nitrogen and phosphorus recommendation for each crop and alternative crop, if included, or use identified for each field, determined in accordance with the Technical Standards for Nutrient Management in Attachment C.

- The methodology by which the NMP accounts for the following factors when calculating the amounts of manure, litter, and process wastewater to be land applied. Where land application rates are calculated using a software package that addresses the factors listed below, and the software addresses those factors in compliance with

all applicable requirements of the Order and the Technical Standards for Nutrient Management, use of the software package may be identified as the methodology for those factors addressed by the software:

- Results of soil tests conducted in accordance with the Technical Standards for Nutrient Management in Attachment C;
- Credits for all nitrogen in the field that will be plant available, including mineralization from prior manure applications and nutrient credits from previous legume crops, determined in accordance with the Technical Standards for Nutrient Management in Attachment C;
- The amount of nitrogen and phosphorus in the manure, litter, and process wastewater to be land applied;
- Consideration of multi-year phosphorus application, to be conducted in accordance with the Technical Standards for Nutrient Management in Attachment C;
- All other applications of plant available nitrogen and phosphorus to the field;
- The form and source of manure, litter, and process wastewater;
- The timing and method of land application, in accordance with the Technical Standards for Nutrient Management in Attachment C, and;
- Volatilization of nitrogen and mineralization of organic nitrogen, in accordance with the Technical Standards for Nutrient Management in Attachment C.

(e) The NMP shall include projections for each of the following elements; these projections are included to demonstrate use of the methodology required in section VII.C.3.b.iv(d) above will not become site-specific terms of the approved NMP:

- Planned crop rotations for each field for the period of permit coverage;
- The projected amount of manure, litter, and process wastewater to be applied to each field;
- Projected credits for all nitrogen in the field that will be plant available;

- Consideration of multi-year phosphorus application, including identification of fields where such applications are planned;

- Accounting for all other additions of plant available nitrogen and phosphorus to the field;

- The predicted form, source, and method of application of manure, litter, and process wastewater for each crop.

(f) The Discharger shall calculate maximum amounts of manure, litter, and process wastewater to be land applied at least once each year using the methodology identified in the NMP in accordance with section VII.C.3.b.iv(d) above before land applying manure, litter, and process wastewater. The required calculations shall rely on the following data:

- A field-specific determination of soil levels of nitrogen and phosphorus, including:

  - for nitrogen, a concurrent determination of nitrogen that will be plant available, and

  - for phosphorus, the results of the most recent soil test conducted in accordance with the Technical Standards for Nutrient Management in Attachment C;

- The results of the most recent representative manure, litter, and process wastewater tests for nitrogen and phosphorus taken within 12 months of the date of land application in accordance with the Technical Standards for Nutrient Management in Attachment C.

v. The Discharger shall identify specific records that will be maintained to document the development, implementation, and management of the NMP and compliance with the minimum practices described in this section VII.C.3.c.i – iv and consistent with the record keeping requirements in sections X.B and X.D of the MRP.

vi. The NMP shall be prepared and submitted according to the following schedule:

(a) Existing CAFOs: as soon as possible, but no later than September 30, 2014. Manure, litter, and process wastewater may not be applied to land accept in accordance with the terms of an approved NMP. The NMP review and approval process may extend up to 90 days after NMP submittal. Owners and operators of existing CAFOs are encouraged to submit NMPs for approval early enough to allow for review and approval before manure, litter, or process wastewater is applied.

(b) New CAFOs: with the Discharger's NOI in accordance with section II.A, General Permit Application and Coverage.

(c) Existing CAFOs that do not currently apply, or new CAFOs that do not plan at the time of construction to apply, manure, litter, or process wastewater to land under their control: at least 90 days prior to the date the Discharger begins applying manure, litter or process wastewater to land under their control.

vii. The NMP shall be signed in accordance with section V.B of Attachment D of this Order, "Signatory and Certification Requirements."

viii. The Executive Officer will review the NMP to ensure that it contains sufficient information to support identification of site-specific terms that address the requirements of sections VII.C.3.b.iv(d) and (e). Upon approval by the Executive Officer, the NMP will be made available for public review and comment for 30 days.

(a) If there is no objection to the proposed NMP after the public review and comment period, the Executive Officer may issue an authorization letter to the Discharger making the terms of the approved NMP, as identified in subsection b.ix of this section VII.C.3, an enforceable part of the Order.

(b) If a written request for a hearing on the NMP is received within the 30-day public review and comment period, which includes the reason(s) the hearing is being requested (e.g., why the NMP is inadequate), the item will be placed on the next available Regional Water Board meeting agenda. Because of the need to comply with certain minimum noticing requirements, placement of this item on the agenda will be at least 30 days from the date when a hearing is requested plus the additional time necessary to follow the administrative procedures involved in preparing for the meeting.

(c) If possible, the Regional Water Board staff will attempt to resolve the issues of concern by arranging a meeting with the applicant and the interested person(s) requesting the hearing. If an agreement is reached in the meeting, a hearing may not be required. If the agreement reached requires significant changes to be made to the NMP, however, a new public notice and comment period may be required. If an agreement is not reached with the interested person(s) requesting the hearing, the hearing will proceed as scheduled. After testimony is taken at the hearing, the Regional Water Board will decide whether permit coverage shall commence or whether the NMP needs to be revised.

ix. The approved NMP referenced in the authorization letter issued to the Discharger is incorporated into this Order by reference. The information, protocols, BMPs, and other conditions in the NMP that address the

requirements of section VII.C.3.b.iv(d) constitute terms of the NMP, which are included as terms and conditions of this Order.

x. The approved NMP shall be fully implemented on the date of permit coverage or upon approval of the NMP. Note that Dischargers may not land apply manure, litter, or process wastewater except in accordance with an NMP approved by the Executive Officer.

xi. A current copy of the NMP shall be retained on site in accordance with section IV of Attachment D of this permit, "Standard Provisions – Records," and shall be provided to the Executive Officer upon request.

xii. The Discharger shall revise the NMP a minimum of once every 5 years. In addition, the Discharger shall revise the NMP more frequently, as necessary, whenever the facility makes a change in how it manages its operation, including the location, amount, method, timing or frequency of land application, so the NMP reflects the current operational characteristics and practices of the CAFO.

(a) The Discharger shall submit the revised NMP to the Executive Officer at least 90 days prior to implementation of the change and identify changes from the previous version. The results of annual calculations of the amount of manure, litter, and process wastewater to be applied, conducted as required in section VII.C.3.b.iv(f), are not required to be submitted to the Executive Officer.

(b) The Executive Officer will review the NMP to determine whether the NMP revisions necessitate revision to the terms of the NMP incorporated into the permit in accordance with section VII.C.3.b.ix.

(c) If revision to the terms is not necessary, the Executive Officer will notify the Discharger. Upon such notification, the Discharger may implement the revised NMP.

(d) If non-substantial revision to the terms is necessary, the Executive Officer will make the revised NMP publicly available and include it in the permit record, revise the terms of the NMP that are incorporated into the permit, and notify the Discharger and the public of changes to the NMP terms. Upon such notification, the Discharger may implement the revised NMP.

(e) If substantial revision, as shown in VII.C.3.b.xii.(f), to the terms is necessary, the Executive Officer will notify the public and make the proposed changes and the revised NMP available for public review and comment according to the procedures described in section VII.C.3.b.viii.

- If there is no objection to the proposed changes after the public review and comment period, the Executive Officer may issue an

authorization letter to the Discharger making the revised terms of the NMP, as identified in subsection b.ix of this section VII.C.3, an enforceable part of the Order.

- If a written request for a hearing on the revised NMP is received within the 30-day public review and comment period, which includes the reason(s) the hearing is being requested (e.g., why the proposed changes to the terms are inadequate), the item will be placed on the next available Regional Water Board meeting agenda. Because of the need to comply with certain minimum noticing requirements, placement of this item on the agenda will be at least 30 days from the date when a hearing is requested plus the additional time necessary to follow the administrative procedures involved in preparing for the meeting.

- If possible, the Regional Water Board staff will attempt to resolve the issues of concern by arranging a meeting with the applicant and the interested person(s) requesting the hearing. If an agreement is reached in the meeting, a hearing may not be required. If the agreement reached requires significant changes to be made to the proposed terms, however, a new public notice and comment period may be required. If an agreement is not reached with the interested person(s) requesting the hearing, the hearing will proceed as scheduled. After testimony is taken at the hearing, the Regional Water Board will decide whether implementation of the revised NMP may commence or whether the NMP needs additional revision.

- The Regional Water Board will notify the Discharger of any additional revisions to the NMP that may be required in order to approve the substantial revision to the terms of the NMP incorporated into the Order. The Regional Water Board will notify the Discharger and the public of the final decision concerning revisions to the terms and conditions of the permit. Upon notification of approval, the discharger may implement the revised NMP.

(f) The changes that are considered substantial changes to the terms of an NMP incorporated into this Order include, but are not limited to, the following:

- Addition of new land application areas not previously included in the Discharger's NMP. A land application area that is addressed by the approved NMP of another Discharger covered under this Order may be added and would not be considered a substantial change if the Discharger applies manure, litter, and process wastewater to that land application area in accordance with the terms of the approved NMP that includes that land application area.

- Any changes to the field-specific maximum amount of plant available nitrogen and phosphorus derived from all sources of nutrients, for each crop identified in the NMP, determined as required by section VII.C.3.b.iv(d).

- Addition of any crop or other use not included in the terms of the Discharger's approved NMP and corresponding field-specific rates of application expressed in accordance with section VII.C.3.b.iv(d).

- Changes to site-specific components of the Discharger's NMP, where such changes are likely to increase the risk of nitrogen and phosphorus transport to waters of the U.S., determined in accordance with the Technical Standards for Nutrient Management in Attachment C.

c. Engineered Waste Management Plan (EWMP)

i. The Discharger shall develop and fully implement an EWMP approved by the Executive Officer in accordance with Attachment B. The EWMP shall be submitted to the Regional Water Board's Executive Officer for approval and implemented as follows:

(a) For new CAFOs, after the adoption date of this Order, the EWMP shall be submitted with the NOI for permit coverage in accordance with the notification requirements in section II. The EWMP shall be implemented within 90 days following plan approval by the Executive Officer.

(b) For existing CAFOs that did not submit or revise the EWMP as required by Order R7-2008-0800, or whose EWMP approved under Order R7-2008-0800 does not reflect current operating conditions, the EWMP shall be submitted no later than the effective date of this Order and fully implemented within 90 days following plan approval by the Executive Officer.

ii. The EWMP shall be prepared by a registered professional engineer in the State of California, or other qualified individual, in accordance with the guidelines specified in Attachment B of this Order. The Executive Officer is hereby authorized to make necessary revisions to the guidelines for the preparation of an EWMP outlined in Attachment B.

iii. Upon receiving the EWMP, the Executive Officer may determine the need to prepare a groundwater monitoring program on a case by case basis as described in section IV of the Fact Sheet. Such a monitoring program would require the installation of monitoring wells at the facility.

iv. Prior to any modifications in the permitted facility that would result in a material change in the quality or quantity of a discharge, or its location, the Discharger shall report all pertinent information in writing to the Regional

Water Board, including a revised EWMP, and obtain revised requirements before any modifications are implemented.

d. Management Practices and Specifications for Composting Sites Not Covered by Individual Waste Discharge Requirements for Composting

Dischargers that operate composting operations on-site at the permitted facility shall implement appropriate management practices to prevent the discharge of pollutants from all composting facilities, unless the composting operations are regulated under other waste discharge requirements or county permits.

i. Public contact with waste shall be precluded through such means as fences, signs and other alternatives approved by the Executive Officer.

ii. Stockpiling and composting areas shall be at least[7]:

(a) 50 feet from property lines;

(b) 500 feet from domestic supply wells;

(c) 100 feet from non-domestic supply wells;

(d) 100 feet from any surface water bodies, including ephemeral streams but excluding Imperial Valley Drains; and

(e) 50 feet from Imperial Valley Drains.

iii. Unless a composting site survey was submitted under Order R7-2008-0800 that reflects the current site conditions, within 90 days of the effective date of this Order, the Discharger shall conduct a survey of the composting site and submit the results of this survey to the Executive Officer, to assure that the site has been properly graded and is adequately designed and constructed to retain all runoff from the composting operations and precipitation from a 100-year, 24-hour storm. Survey results shall be included in an updated topographical map of the site, extending one-quarter mile beyond the property boundary. In accordance with the requirements for storm water pollution prevention under Parts 122, 123, and 124, the map shall show, at a minimum, the following:

(a) The property boundary and all adjacent surface water bodies, including ephemeral streams;

(b) Specific areas of the site used for on-loading and off-loading, stockpiling and composting, and curing or storage of compost;

(c) Site access road and all on-site roads;

[7] Alternative compliance setback requirements are described under V.C.2.b.iv

(d) Grades and elevations; and

(e) Berms and/or water storage basins.

In addition to the above, the survey shall include a statement from a California-registered civil engineer certifying that the site is adequately graded and constructed to retain all runoff from the composting operations and precipitation from a 100-year, 24-hour storm. If the features listed in subsections iii(a) through (e) above are identified in a map included in the facility's approved EWMP, the map need not be recreated to satisfy this requirement.

iv. Annually, prior to the first day of November, any necessary erosion control measures shall be implemented and any necessary construction, maintenance, and/or repairs of drainage control facilities shall be completed to prevent erosion or flooding of the site.

v. The Discharger shall take adequate steps to ensure that there is no ponding of water at the site and that raw materials and/or compost are confined to storage and treatment areas.

vi. The Discharger shall immediately notify Regional Water Board staff of any flooding, slope failure or other change in site conditions which could impair the integrity of waste containment facilities or precipitation and drainage control structures.

vii. The Discharger shall immediately remove and relocate any wastes which are discharged at this site in violation of these requirements.

viii. The Discharger shall maintain trucking manifests on-site in accordance with the requirements in section X.E of the MRP.

ix. Within 90 days of the effective date of this Order the Discharger shall sever and plug any existing subsurface tile drainage system in the composting operation, treatment and storage areas.

x. One hundred eighty (180) days prior to cessation of the composting operations at the facility, the Discharger shall submit a proposal for assessing the extent of contamination caused by the operations of the facility, including, but not limited to assessing any contamination of soil, groundwater and on-site ponds. Within 90 days of approval of the proposal by the Executive Officer, the Discharger shall submit to the Executive Officer results of the contamination assessment and a closure plan for Executive Officer approval. The closure plan shall be implemented immediately after Executive Officer approval.

xi. The Discharger shall conduct monitoring in accordance with sections IX.E and IX.F of the MRP.

4. Construction, Operation and Maintenance Specifications

a. Retention ponds and manured areas at CAFOs in operation since November 27, 1984, shall be protected from inundation or washout by overflow from any stream channel during 20-year peak stream flows. Facilities existing before November 27, 1984 which are protected against 100-year peak stream flows, shall continue to provide such protection. Facilities built after November 27, 1984, shall be protected from any washout or erosion of wastes or covering material, and from any inundation which could occur as a result of floods having a predicted frequency of once in 100 years.

b. Retention ponds shall be lined with or underlain by soil that contains at least ten (10) percent clay and not more than ten (10) percent gravel or artificial materials or materials with equivalent impermeability. These ponds shall also be sited, designed, constructed and operated to ensure that wastes will be a minimum of five (5) feet above the highest anticipated elevation of underlying groundwater.

c. No new containment structures shall be constructed of manure, and manure shall not be used to improve or raise existing containment structures.

d. Ponds shall be managed to prevent breeding of mosquitoes, in particular:

i. An erosion control program shall ensure that small coves and irregularities are not created around the perimeter of the water surface.

ii. Weeds shall be minimized through control of water depth, harvesting, or herbicides.

iii. Dead algae, vegetation, and debris shall not accumulate on the water surface.

e. All composting operations at this facility shall comply with the laws of municipalities, counties, drainage districts, air quality control board, and other local agencies, including compliance with the applicable regulatory and permitting requirements of the County of Imperial Public Health Department for Compostable Materials Handling Operations.

f. Antidegradation Analysis for a New Facility or an Existing Facility that will undergo Significant Expansion[8]

Discharges from a new facility or an existing facility that will undergo significant expansion[9] within the next 5 years must conduct an antidegradation analysis and

[8] Section IV of the Fact Sheet addresses antidegradation requirements as they apply to existing facilities.
[9] "Significant expansion" shall be considered total replacement of process or production equipment or facilities or construction of new processes, production equipment, or facilities that are substantially independent of the existing facilities. In determining whether new processes or facilities are substantially independent, the Executive Officer may consider factors such as the extent to which the new facility is integrated with the

submit a report of that analysis to the Regional Water Board's Executive Officer for review and approval. The antidegradation analysis report shall be developed in accordance with the State Antidegradation Policy (Resolution No. 68-16) and the Federal Antidegradation Policy (40 C.F.R. § 131.12). The report shall consider any potential impacts the discharge may have on the receiving water quality and the receiving water body's designated beneficial uses, as defined in the Regional Water Board's Basin Plan. In considering potential impacts to receiving groundwaters, the report shall address the soil types underlying the new or expanded facility, including the permeability of the soils and other soil properties relevant to the potential for wastewater to be discharged to groundwater, the soils' suitability for construction of the proposed facilities, the depth to groundwater, and the locations of wells and other potential conduits to groundwater. In addition, the report shall provide: information on the quality of the proposed discharge; an evaluation of the potential impacts of the discharge; CEQA documentation for the proposed project; a summary that identifies whether the proposed discharge will result in degradation of water quality; and a certification that satisfies both the Federal and State antidegradation policies.

5. Other Special Provisions

a. Transfer of Manure, Litter, and Process Wastewater – Applicable to Large CAFOs

In cases where CAFO-generated manure, litter, or process wastewater is sold, given away or otherwise transferred to other persons (i.e., for use or disposal on land not under the control of the permitted CAFO), the Discharger shall comply with the following conditions:

i. Provide the recipient(s) with the most current representative information on the nutrient content of the manure, litter, and/or process wastewater.

(a) Manure, litter, and process wastewater must be tested for nitrogen and phosphorus at least annually; and

(b) Sampling and analysis must be conducted in accordance with the requirements of section IX.C of the MRP and the specifications in the Technical Standards for Nutrient Management (Attachment C).

ii. Retain the applicable records specified in section X.A of the MRP, Manure Transfer Records, for transfer of manure, litter and process wastewater. In accordance with section IV of Attachment D, "Standard Provisions – Records," these records shall be maintained on-site for a period of 5 years and submitted to the Regional Water Board upon request.

b. Compliance with Applicable Storm Water Requirements

existing facility and the extent to which the new facility is engaged in the same general type of activity as the existing facility.

In the event that there are storm water discharges associated with regulated, non-CAFO or non-composting industrial activities, the Discharger shall submit a NOI and/or maintain coverage under the State Water Board Order for Discharges of Storm Water Associated with Industrial Activities (NPDES General Permit No. CAS000001).

i. All storm water discharges from this facility shall comply with the laws of municipalities, counties, drainage districts, and other local agencies regarding discharges of storm water to storm water drain systems or other courses under their jurisdiction.

ii. Storm water discharges from the facility shall not cause or threaten to cause pollution or contamination.

iii. Storm water discharges associated with industrial activity from the facility shall not contain hazardous substances equal to or in excess of a reportable quantity listed in Part 117 and/or Part 302.

6. Required Submittals, Reports, and Compliance Schedules

a. Deliverables and Due Dates. The Discharger shall comply with the following compliance schedules as summarized in Table 3:

Table 3. Deliverables and Due Dates

Deliverable	Description (Permit Reference)	Due Date
Notice of Intent (NOI) II.A.1	Existing Enrollees (under Order R7-2008-0800) must submit a completed NOI form for Existing CAFOs Enrolled under Order R7-2008-0800 (Attachment K) to enroll into Permit. Existing Enrollees must submit an NOT to terminate permit coverage.	September 30, 2014
	New Enrollees must submit a completed NOI form (USEPA Form 2B) and the appropriate filing fee to enroll into Permit.	*New CAFOs that do not propose to apply manure:* At least 30 days before the start of permit coverage[a] *New CAFOs that propose to apply manure:* At least 90 days before the start of permit coverage
Engineered Waste Management Plan (EWMP) II.A.1, VII.C.3.c, Attachment B	Existing Enrollees have submitted an EWMP to the Regional Water Board.	*EWMP submitted for Order R7-2008-0800 reflects current operating conditions:* N/A *EWMP submitted for Order R7-2008-0800 does not reflect current operating conditions:* September 30, 2014
	New Enrollees must submit an EWMP for the Facility.	*New CAFOs:* At least 30 days before the start of any new discharge
	Dischargers planning modifications to the CAFO that would result in a material change in the discharge must submit a revised EWMP to the Regional Water Board.	*Enrollees planning modifications:* Before modifications are implemented
Nutrient Management Plan (NMP) II.A.1, V.C.2.a, VII.C.3.b, Attachment C	All Enrollees that land apply manure, litter, or process wastewater must develop a NMP and submit to Regional Water Board.	*Existing CAFOs:* As soon as possible but no later than September 30, 2014[b] *New CAFOs:* With the NOI *Enrolled CAFOs that did not plan to land apply at the time of enrollment:* at least 90 days prior to commencing land application
Composting Site Survey VII.C.3.d.iii	Dischargers with on-site composting operations that did not submit a site survey under R7-2008-0800 shall submit the results of a survey of the composting site survey conducted to assure that the site has been properly graded and is designed and constructed as required.	Within 90 days of the effective date of Order
Erosion Control Measures	Dischargers shall implement necessary erosion control measures and complete any necessary construction, maintenance, and/or repairs of drainage control facilities to prevent erosion or flooding of the site	Annually, prior to the first day of November
NMP VII.C.3.b.x	All Enrollees that land apply manure, litter, or process wastewater must implement requirements of approved NMP.	Within 30 days of approval
Revised NMP	Changes to the NMP must be submitted to the	At least 90 days before

Deliverable	Description (Permit Reference)	Due Date
VII.C.3.b.xii	Executive Officer.	implementing the change
Discharge Notification Report MRP XI.D	The Discharger shall report any noncompliance that may endanger human health or the environment.	*Orally:* Immediately *Certification of notification of appropriate agency with jurisdiction over the affected water bodies:* Within 24 hours after becoming aware of a discharge to a drainage channel or a surface water *Written:* Within 5 days of becoming aware of the incident
Transfer of Ownership – Order transmittal letter and Notice of Termination (NOT) VII.A.2.c	For transfers of ownership or management, the Discharger shall: • Transmit a copy of this Order to the succeeding owner/operator and forward a copy of the transmittal letter to the Regional Water Board. • Notify the succeeding owner/operator of the requirement to obtain coverage under the General Permit. • Submit an NOT to the Regional Water Board.	Prior to the change in ownership or management
Report of Facility Modifications VII.C.3.c.iv	For modifications that would result in material change in the quality or quantity of discharges or the location of discharge, the Discharger shall report all pertinent information in writing to the Regional Water Board.	Prior to modifications
Annual Report Attachment E, XI.C; Attachment G	Each Enrollee shall submit an Annual Report that includes, if applicable: • Annual Report of Animal Waste Discharge • Composting Inventory • Land Application of Manure, Litter, and Process Wastewater Report • Certification	February 15th of each year
Antidegradation Analysis for New Facility or Significant Expansion of Existing Facility VII.C.4.f	Discharges from a new facility or an existing facility that will undergo significant expansion within the next 5 years shall be required to submit an antidegradation analysis report to the Regional Water Board's Executive Officer for review and approval. The antidegradation analysis report shall be developed in accordance with the State Antidegradation Policy (Resolution No. 68-16) and the Federal Antidegradation Policy (section 131.12). The report shall consider any potential impacts the discharge may have on the receiving water quality and the receiving water bodies designated beneficial uses, as defined in the Regional Water Board's Basin Plan.	Prior to start of construction of significant changes to the facility

a. Permit coverage is required at the time of a discharge from a CAFO.

b. The NMP must be reviewed by the Executive Officer and the public, approved, and the terms incorporated into the permit prior to land application of manure, litter, or process wastewater.

VIII. COMPLIANCE DETERMINATION

A. Compliance with the effluent limitations contained in section IV of this Order will be determined as specified below:

B. Compliance determination with the terms of this Order shall be based on the following:

1. Periodic inspections by Regional Water Board staff;

2. Evaluation of the annual report submitted according to the Monitoring and Reporting Program of this Order; and

3. Any other information deemed necessary by the Executive Officer.

ATTACHMENT A – DEFINITIONS

Agricultural Material
Agricultural material means material of plant or animal origin, which result from the production and processing of farm, ranch, agricultural, horticultural, aquacultural, silvicultural, floricultural, vermicultural, or viticultural products, including manures, orchard and vineyard prunings, and crop residues.

Animal Feeding Operation (AFO)
AFO means a lot or facility (other than an aquatic animal production facility) where the following conditions are met: (i) animals (other than aquatic animals) have been, are, or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12-month period, and (ii) crops, vegetation, forage growth, or post-harvest residues are not sustained in the normal growing season over any portion of the lot or facility.

Application
Application means the Notice of Intent (NOI) to Comply with the Terms of the General Permit to Discharge Wastes Associated with Confined Animal Feeding Operations.

Arithmetic Mean (μ)
Also called the average, is the sum of measured values divided by the number of samples. For ambient water concentrations, the arithmetic mean is calculated as follows:

Arithmetic mean = $\mu = \Sigma x / n$ where: Σx is the sum of the measured ambient water concentrations, and n is the number of samples.

Best Management Practices (BMPs)
BMPs are methods, measures, or practices designed and selected to reduce or eliminate the discharge of pollutants to surface waters from point and non-point discharges including storm water. BMPs include structural and non-structural controls, and operation and maintenance procedures, which can be applied before, during, and/or after pollution producing activities.

Biosolids
Biosolids refer to non-hazardous sewage sludge as defined in 40 C.F.R. § 503.9.

Coefficient of Variation (CV)
CV is a measure of the data variability and is calculated as the estimated standard deviation divided by the arithmetic mean of the observed values.

Compost
Compost means compost feedstock that is in the process of being rapidly decomposed and is unstable. Active compost is generating temperatures of at least 50 degrees Celsius (122 degrees Fahrenheit) during decomposition; or is releasing carbon dioxide at a rate of at least 15 milligrams per gram of compost per day, or the equivalent of oxygen uptake.

Compostable Material
Compostable material is defined as any organic material that when accumulated will become active compost as defined in section 17852(a)(11) of Title 14, CCR.

Concentrated Animal Feeding Operation (CAFO)
CAFO means an AFO which is defined as a Large CAFO or Medium CAFO by 40 C.F.R. § 122.23 (b)(4) and (6), or that is designated as a CAFO.

Detected, but Not Quantified (DNQ)
DNQ are those sample results less than the RL, but greater than or equal to the laboratory's MDL.

Estimated Chemical Concentration
The estimated chemical concentration that results from the confirmed detection of the substance by the analytical method below the ML value.

Existing Discharger
Any Discharger that is not a new Discharger.

Fecal Coliform
Fecal coliform means the bacterial count (Parameter 1) at 40 C.F.R. § 136.3 in Table 1A, which also cites the approved methods of analysis.

Finished Compost
Finished compost is defined as a stabilized compost in which any organic material that has undergone the Process to Further Reduce Pathogens (PFRP), as described in section 17868.3 of Title 14, CCR, and has reached a stage of reduced biological activity, as indicated by reduced temperature and rate of respiration below that of active compost.

Food Material
Food material means any material that was acquired for animal or human consumption, is separated from the municipal solid waste stream, and that does not meet the definition of "agricultural material." Food material may include material from food facilities as defined in California Health and Safety Code section 113785, grocery stores, institutional cafeterias (such as, prisons, schools and hospitals) or residential food scrap collection.

Grab Sample
Grab sample means a sample which is taken from a waste stream on a one-time basis without consideration of the flow rate of the waste stream and without consideration of time.

Green Material
Green material means any plant material that is separated at the point of generation, contains no greater than 1.0 percent of physical contaminants by weight, and meets the requirements of section 17868.5 of Title 14, CCR. Green material includes, but is not limited to, yard trimmings, untreated wood wastes, natural fiber products, and construction and demolition wood waste. Green material does not include food material, biosolids, mixed solid waste, material processed from commingled collection, wood containing lead-based paint or wood preservative, mixed construction or mixed demolition debris.

Green Waste
Green waste consists of or contains waste from plants, including leaves, clippings, cuttings, grass trimmings, weeds, shrubbery, bushes, trees, residential or community garden wastes, and untreated wood wastes.

Infeasible
Infeasible means not capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.

Land Application
Land application means the application of manure, litter, or process wastewater onto or incorporated into the soil. Land application does not include the use of process wastewater for dust control within the production area.

Land Application Area
Land application area means land under the operational control of a CAFO owner or operator, whether it is owned, rented, or leased, to which manure, litter, or process wastewater from the production area is or may be applied.

Large CAFO
Large CAFO means an AFO that stables or confines as many as or more than the numbers of animals specified in any of the following categories: (i) 700 mature dairy cattle, whether milked or dry; (ii)1,000 veal calves; (iii)1,000 cattle other than mature dairy cows or veal calves. Cattle includes but is not limited to heifers, steers, bulls and cow/calf pairs; (iv) 2,500 swine each weighing 55 pounds or more; (v)10,000 swine each weighing less than 55 pounds; (vi) 500 horses; (vii) 10,000 sheep or lambs; (viii) 55,000 turkeys; (ix) 30,000 laying hens or broilers, if the AFO uses a liquid manure handling system; (x)125,000 chickens (other than laying hens), if the AFO uses other than a liquid manure handling system; (xi) 82,000 laying hens, if the AFO uses other than a liquid manure handling system; (xii) 30,000 ducks (if the AFO uses other than a liquid manure handling system); or (xiii) 5,000 ducks (if the AFO uses a liquid manure handling system).

Liquid Manure Handling System
Liquid manure handling system means a system that collects and transports or moves waste material with the use of water, such as in washing of pens and flushing of confinement facilities. This would include the use of water impoundments for manure and/or wastewater treatment.

Load Allocation (LA)
The portion of a receiving water's total maximum daily load that is allocated to one of its non-point sources of pollution or to natural background sources.

Manure
Manure is defined to include manure, litter, bedding, compost and raw materials or other materials commingled with manure or set aside for land application or other use.

Median
The middle measurement in a set of data. The median of a set of data is found by first arranging the measurements in order of magnitude (either increasing or decreasing order). If the number of measurements (n) is odd, then the median = $X_{(n+1)/2}$. If n is even, then the median = $(X_{n/2} + X_{(n/2)+1})/2$ (i.e., the midpoint between the $n/2$ and $n/2+1$).

Medium CAFO
Medium CAFO means any AFO that stables or confines as many or more than the numbers of animals specified in any of the following categories: (i) 200 to 699 mature dairy cattle, whether milked or dry cows; (ii) 300 to 999 veal calves; (iii) 300 to 999 cattle other than mature dairy cows or veal calves. Cattle includes but is not limited to heifers, steers, bulls and cow/calf pairs; (iv) 750 to 2,499 swine each weighing 55 pounds or more; (v) 3,000 to 9,999 swine each weighing less than 55 pounds; (vi)150 to 499 horses, (vii) 3,000 to 9,999 sheep or lambs, (viii) 16,500 to 54,999 turkeys, (ix) 9,000 to 29,999 laying hens or broilers, if the AFO uses a liquid manure handling system; (x) 37,500 to 124,999 chickens (other than laying hens), if the AFO uses other than a liquid manure handling system; (xi) 25,000 to 81,999 laying hens, if the AFO uses other than a liquid manure handling system; (xii) 10,000 to 29,999 ducks (if the AFO uses other than a liquid manure handling system); or (xiii) 1,500 to 4,999 ducks (if the AFO uses a liquid manure handling system) and either one of the following conditions are met (a) pollutants are discharged into waters of the United States through a man-made ditch, flushing system, or other similar man-made device; or (b) pollutants are discharged directly into waters of the United States which originate outside of and pass over, across, or through the facility or otherwise come into direct contact with the animals confined in the operation.

Method Detection Limit (MDL)
MDL is the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero, as defined in title 40 of the Code of Federal Regulations, Part 136, Attachment B, revised as of July 3, 1999.

Minimum Level (ML)
ML is the concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed.

Municipality
Municipality means a city, town, borough, county, parish, district, association, or other public body created by or under State law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the Clean Water Act (CWA).

New Discharger
New Discharger includes any new CAFOfrom which there will be a discharge of pollutants.

New Source
New Source means any building, structure, facility, or installation from which there is or may be a discharge of pollutants, the construction of which commenced:

- For CAFOs that confine dairy cows and cattle other than veal calves, after April 12, 2003.
- For CAFOs that confine swine, poultry, or veal calves, after January 19, 2009.

A building, structure, facility, or installation constructed after the applicable date above is a new source if:

(i) It is constructed at a site at which no other source is located; or
(ii) It totally replaces the process or production equipment that causes the discharge of pollutants at an existing source; or
(iii) Its processes are substantially independent of an existing source at the same site. In determining whether these processes are substantially independent, the Director shall consider such factors as the extent to which the new facility is integrated with the existing plant; and the extent to which the new facility is engaged in the same general type of activity as the existing source.

Construction on a site at which an existing source is located results in a modification subject to 40 CFR § 122.62 rather than a new source (or a new discharger) if the construction does not create a new building, structure, facility, or installation meeting the criteria (i), (ii), or (iii), above, but otherwise alters, replaces, or adds to existing process or production equipment.

For purposes of determining whether a discharger is a new source, “facility” means buildings, structures, process or production equipment or machinery which form a permanent part of the new source and which will be used in its operation, if these facilities or equipment are of such value as to represent a substantial commitment to construct. It excludes facilities or equipment used in connection with feasibility, engineering, and design studies regarding the source or water pollution treatment for the source.

Not Detected (ND)
ND results are those sample results less than the laboratory’s MDL.

Notice of Intent (NOI)
NOI is a form submitted by the owner/operator applying for coverage under a general permit. It requires the applicant to submit the information necessary for adequate program implementation, including, at a minimum, the legal name and address of the owner or operator, the facility name and address, type of facility or discharges, and the receiving stream(s). [(40 C.F.R. § 128.28(b)(2)(ii)].

Process Wastewater
Process wastewater means water directly or indirectly used in the operation of the CAFO for any or all of the following: spillage or overflow from animal or poultry watering systems; washing, cleaning, or flushing pens, barns, manure pits, or other AFO facilities; direct contact swimming, washing, or spray cooling of animals; or dust control. Process wastewater also includes any water which comes into contact with or is a constituent of raw materials, products, or byproducts including manure, litter, feed, milk, eggs, or bedding.

Production Area
Production area means that part of an AFO that includes the animal confinement area, the manure storage area, the raw materials storage area, and the waste containment areas. The animal containment area includes but is not limited to open lots, housed lots, feedlots, confinement houses, stall barns, free stall barns, milkrooms, milking centers, cowyards, barnyards, medication pens, walkers, animal walkways, and stables. The manure storage area includes but is not limited to lagoons, runoff ponds, storage sheds, stockpiles, under house or

pit storages, liquid impoundments, static piles, and composting piles. The raw materials storage area includes but is not limited to feed silos, silage bunkers, and bedding materials. The waste containment area includes but is not limited to settling basins, and areas within berms and diversions which separate uncontaminated storm water. Also included in the definition of production area is any egg washing or egg processing facility, and any area used in the storage, handling, treatment, or disposal of mortalities.

Publicly Owned Treatment Works (POTW)
POTW means a treatment works as defined in 40 C.F.R. part 212, which is owned by a State or municipality. This definition includes any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage or industrial wastes of a liquid nature. It also includes sewers, pipes, and other conveyances only if they convey wastewater to a POTW Treatment Plant. The term also means the municipality as defined in 40 C.F.R. § 502(4), which has jurisdiction over the Indirect Discharges to and the discharges from such a treatment works.

Quality Assurance (QA)
Quality assurance is a practice in toxicity testing that addresses all activities affecting the quality of the final effluent toxicity data. QA includes practices such as effluent sampling and handling, source and condition of test organisms, equipment condition, test conditions, instrument calibration, replication, use of reference toxicants, recordkeeping, and data evaluation.

Quality Control (QC)
Quality control is the set of more focused, routine, day-to-day activities carried out as part of the overall QA program.

Report of Waste Discharge
For the purposes of this General Order, references to the Report of Waste Discharge (ROWD) shall include the Notice of Intent and any other application information submitted to the Regional Water Board.

Sample
Sample is a representative portion of a specific environmental matrix that is used in testing.

Setback
Setback means a specified distance from waters of the United States or potential conduits to waters of the United States where manure, litter, and process wastewater may not be land applied. Examples of conduits to surface waters include but are not limited to: Open drainage ditches, tile drainage lines, intake structures, sinkholes, and agricultural well heads.

Sewage Sludge
Sewage sludge is solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in a treatment works. Sewage sludge includes, but is not limited to, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment processes; and a material derived from sewage sludge. Sewage sludge does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator or grit and screenings generated during preliminary treatment of domestic sewage in a treatment works.

Sewage sludge that has been classified as hazardous shall be disposed in accordance with 40 C.F.R. part 261.

Significant Storm Event
Significant storm event means a storm event which results in continuous discharge of storm water for a minimum of one hour, or intermittent discharge of storm water for a minimum of three hours in a 12-hour period.

Small CAFO
Small CAFO means an AFO that is designated as a CAFO and is not a Medium or Large CAFO.

Source of Drinking Water
Any water designated as municipal or domestic supply (MUN) in a Regional Water Board Basin Plan.

Standard Deviation (σ)
Standard Deviation is a measure of variability that is calculated as follows:

$$\sigma = (\sum[(x - \mu)^2]/(n - 1))^{0.5}$$

where:
x is the observed value;
μ is the arithmetic mean of the observed values; and
n is the number of samples.

Statistic
Statistic is a computed or estimated quantity such as the mean, standard deviation, or Coefficient of Variation.

Technology-Based Effluent Limitation
A technology-based effluent limitation is a permit limit for a pollutant that is based on the capability of a treatment method to reduce the pollutant to a certain concentration.

The Act
The Act means Federal Water Pollution Control Act as amended, also known as the Clean Water Act (CWA) as amended, which is set forth at 33 USC 1251 et seq.

Total Maximum Daily Load (TMDL)
A TMDL is the sum of the individual waste load allocations and load allocations for receiving water. A margin of safety is included with the two types of allocations so that any additional loading, regardless of source, would not produce a violation of water quality standards.

Treatment Works
Treatment works is either a federally owned, publicly owned, or privately owned device or system used to treat (including recycle and reclaim) either domestic sewage or a combination of domestic sewage and industrial waste of a liquid nature.

Vector Attraction
Vector Attraction is the characteristic of a material that attracts rodents, flies, mosquitoes, or other organisms capable of transporting infectious agents.

Vegetated Buffer
Vegetated buffer means a narrow, permanent strip of dense perennial vegetation established parallel to the contours of and perpendicular to the dominant slope of the field for the purposes of slowing water runoff, enhancing water infiltration, and minimizing the risk of any potential nutrients or pollutants from leaving the field and reaching waters of the United States.

Waste Load Allocation (WLA)
The portion of a receiving water's total maximum daily load that is allocated to one of its existing or future point sources of pollution.

Waters of the United States
Waters of the United States means: (1) all waters that are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters that are subject to the ebb and flow of the tide; (2) all interstate waters, including interstate wetlands; (3) all other waters such as intrastate lakes, rivers, and streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters: (a) which are or could be used by interstate or foreign travelers for recreational or other purposes; from which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or, which are or could be used for industrial purposes by industries in interstate commerce; (4) all impoundments of waters otherwise defined as waters of the United States; (5) tributaries of waters identified in (1) through (4) of this definition; (6) the territorial sea; and (7) wetlands adjacent to waters (other than waters that are themselves wetlands) identified in items (1) through (6) of this definition.

ATTACHMENT B – REQUIREMENTS FOR AN ENGINEERED WASTE MANAGEMENT PLAN

The Engineered Waste Management Plan shall be prepared by a registered professional engineer in the State of California, or other qualified individual, and shall address Item Nos. 1 through 7, below.

1. A site plan that specifies:

    a. The address and legal description of the property (i.e., Assessor's Parcel Number and Township, Range, Section(s) and Baseline Meridian);

    b. The name, address, and telephone number of the owner and operator of the property;

    c. Total gross acreage of the property, showing property boundaries and all existing and proposed facilities including buildings, storage areas, berms/levees, holding ponds, pumping facilities, culverts, drainage easements, disposal areas, croplands (whether farmed by the owner/operator or another party), etc.;

    d. Present and proposed animal population (numbers of each: milk cows, dry cows, calves, heifers, etc.) and volume of washwater generated; and

    e. Overall site dimensions, contours, a vicinity map, north arrow, and the date the plan was prepared. The plan should be drawn on a standard blue print format using an appropriate scale that shows sufficient details of all facilities.

2. Engineering calculations showing that containment structures are able to retain all wastewater generated from the facility, including all of the precipitation on and drainage through waste areas (e.g., manured areas) resulting from storms of up to and including the 25-year, 24-hour storm as required by the effluent limitations in Part V.A of the permit.

3. Engineering data showing that:

    a. Containment structures are lined with or underlain by soil that contains at least 10 percent clay and not more than 10 percent gravel or artificial materials of equivalent permeability; and

    b. Containment structures are sited, designed, constructed, and operated to ensure that bottoms are at a minimum of five feet above the highest anticipated elevation of underlying ground water.

    For existing CAFOs whose structures fail to meet the soil and siting criteria, the EWMP shall also include proposed measures to ensure the structures meet the soil and siting criteria. The measures shall include a description of the proposed construction materials and compaction method to be used to build liners, berms/levees, and other containment facilities. The proposed measures shall demonstrate that seepage from containment structures will not exceed 1×10^{-6} cm/sec.

4. An engineering report (with a map to scale, calculations, and specifications as necessary), showing whether the retention ponds and manured areas at the site are either:
   a. Protected from inundation or washout by overflow from any stream channel during 20-year peak storm flow if the site has been in operation on or before November 27, 1984; or

   b. Protected from inundation or washout by overflow from any stream channel during 100-year peak storm flow if the site has been in operation after November 27, 1984.

   For existing concentrated animal feeding operations (CAFOs) whose ponds and manure areas fail to meet the appropriate flood protection criteria based on when the facility started operations, the report shall also include proposed measures to protect the ponds and manured areas against the corresponding flood event.

5. An operational and maintenance plan to ensure that:

   a. All precipitation and surface drainage from outside manured areas, including that collected from roofed areas resulting from up to and including a 25-year, 24-hour storm or other design storm event used in sizing the impoundment for no discharge in accordance with the requirements of section V.B of the Order, shall be diverted away from the manured areas, unless such drainage is fully contained.

   b. Ponds shall be managed to prevent breeding of mosquitoes, erosion, and excess weeds, algae, and vegetation;

   c. Holding ponds provide maximum pond capacity prior to winter storms; periodic dredging, etc. animals at the facility shall be prevented from entering surface waters within the confined areas; and

   d. There shall be no discharge to surface waters from containment structures, unless chronic, catastrophic or cumulative rainfall causes overflow from a storage facility designed, constructed, maintained, operated to contain all process generated wastewater plus the runoff from a 25-year, 24-hour storm, or other design storm event used in sizing the impoundments at new source swine, poultry, and veal calf CAFOs for zero discharge.

6. A proposed plan for the handling and disposal of manure. The manure handling and disposal plan shall be consistent with the facility's Nutrient Management Plan (NMP), as applicable.

ATTACHMENT C – TECHNICAL STANDARDS FOR NUTRIENT MANAGEMENT

Dischargers that land apply manure, litter, or process wastewater shall comply with the following technical standards for nutrient management.

Sampling Requirements

The Discharger shall use sample containers and sample handling, storage, and preservation methods that are accepted or recommended by the selected analytical laboratory or, as appropriate, in accordance with approved U.S. Environmental Protection Agency (USEPA) analytical methods. The following sampling procedures are standards currently recognized by the Regional Water Board. When special procedures appear to be necessary at an individual facility, the Discharger may request approval of alternative sampling procedures for nutrient management. The Executive Officer will review such requests and if adequate justification is provided, may approve the requested alternative sampling procedures.

Soil Sampling and Analysis

1. At least once every 5 years, commencing with the first full calendar year regulated by the Order, the Discharger shall collect and analyze representative soil samples from all land application areas under the Discharger's control where process wastewater and/or manure is applied. Soil samples shall be collected following harvest of a crop and before nutrients are added for the following crop.

2. Soil samples shall be collected as follows:

    a. Samples shall be collected from each land application area receiving manure and/or process wastewater. A single sample shall represent no more than 10 acres; samples shall be composited for every 80 acres. Samples shall be composited by:

        i. Placing equal volumes of soil from each 10-acre sample site for each land application area and sample depth, in a clean plastic bucket. Moist soils may be air dried until they can be mixed easily.

        ii. Thoroughly mixing the sample and placing at least one pint of the composite sample in a clean plastic container to be shipped to the laboratory. The laboratory should be consulted for the exact amount of sample and the sample container needed.

    b. All samples from the same depth interval for all sites within each land application area shall be composited for analyses.

        i. For land application areas to be planted in vegetables, samples shall be collected from a depth of 0 to 12 inches.

ii. For land application areas to be planted in field crops, subsamples shall be collected from 0 to 24 inches. Samples from each site shall be split into two sections representing depth intervals 0 to 12 inches and12 to 24 inches.

c. Soil samples shall be collected with soil probes or augers from a minimum of 10 sites in each land application area and composited as described below.

i. At least three of the 10 samples shall be from the upper third of the land application area.

ii. In fields where soil texture, crop yield, or other soil-related factors vary, at least 10 samples shall be collected from each different area and composites from each area shall be analyzed separately.

iii. Sample locations in each land application area shall be recorded on a sketch for future sampling consistency.

iv. Soil probes or augers shall be cleaned thoroughly between samples by wiping clean with a damp cloth.

Manure Sampling

Manure samples shall be collected as follows:

1. At least 10 equal-size samples of manure shall be collected from various portions of the manure pile, with most samples from the center. No more than two samples shall be collected from the surface and two from the bottom.

2. The 10 samples shall be placed in a container and mixed well before a subsample is placed in a clean container provided by or approved by the analytical laboratory that will receive the samples.

3. Sample containers that are reused shall be washed with soap and thoroughly rinsed with clean (tap) water.

Process Wastewater Sampling

Process wastewater composite samples shall be collected as follows:

1. A representative composite sample of process wastewater shall be prepared based on a minimum of three time-series samples collected during a discharge event that are representative of the beginning, middle, and end of the process wastewater discharge. These samples shall be combined in a single container, mixed, and poured into a clean container provided by or approved by the laboratory that will receive the samples. Containers that are reused shall be washed with soap and thoroughly rinsed with clean (tap) water.

2. The samples shall be collected at a point that is prior to any dilution or blending with irrigation water and shall be representative of the process wastewater applied to the land application area.

Analytical Requirements

1. Analyses of soil samples shall be conducted using methods utilized by the North American Proficiency Testing (NAPT) program or accepted by the University of California (available on the Internet at http://anlab.ucdavis.edu/analyses/soil).

2. Analyses of manure shall be conducted by: methods utilized by the Manure Analyses Proficiency (MAP) Testing Program or accepted by the University of California; and laboratories participating in the MAP Testing Program or other programs whose tests are accepted by the University of California.

3. Analyses of process wastewater samples shall be conducted using methods described by the MAP Testing Program or California Department of Health Services Environmental Laboratory Analytical Procedures accredited for wastewater analyses.

Crop Nutrient Requirements

Each crop's nutrient requirements for nitrogen and phosphorus shall be determined based on recommendations from the University of California Cooperative Extension's Guidelines for Vegetable Crops – Bulletin 104-V (available for purchase - see http://ceimperial.ucanr.edu/files/131143.doc) or Guidelines for Field Crops – Bulletin 104-F (available for purchase – see http://ceimperial.ucanr.edu/files/131142.docx), or from historic crop nutrient removal. Nutrient requirements based on historic crop nutrient removal must be clearly documented in the Nutrient Management Plan (NMP). Alternative sources for crop nutrient requirements, including phosphorus recommendations based on soil test phosphorus levels, if required, may be proposed by clearly documenting the recommendations and the source of the recommendations in the NMP.

Available Nutrients

1. A nutrient budget for nitrogen shall be prepared that considers all potential sources of nutrients including, but not limited to animal manure and organic byproducts, waste water, commercial fertilizer, crop residues, legume credits, and irrigation water. A nutrient budget for phosphorus is required for fields rated "Medium" or higher risk using the Phosphorus Index.

2. Nutrient values of soil, manure, process wastewater, and irrigation water shall be determined based on laboratory analysis. "Book values" for manure and process wastewater may be used for planning of first year application(s) during initial development of the NMP if necessary. Acceptable book values are those values recognized by American Society of Agricultural and Biological Engineers (ASABE), the Natural Resources Conservation Service (NRCS), and/or the University of California that accurately estimate

the nutrient content of the material. The nutrient content of commercial fertilizers shall be derived from the published values certified by the California Department of Food and Agriculture.

3. Nutrient credit from previous legume crops shall be determined using values based on University of California's Manure Technical Guide Series for Crop Management Professionals, *Legume N Credit for Crops Following Alfalfa* published in December 2009 (http://groups.ucanr.org/manuremanagement/files/74626.pdf). For legumes other than alfalfa, nutrient credits shall be determined by methods acceptable to the University of California Cooperative Extension, NRCS, or a specialist certified in preparing NMPs and the methods and values used shall be documented in the NMP.

Nutrient Application Rates

General

1. NMPs shall specify the form, source, amount, timing, and method of application of nutrients on each field to minimize nitrogen and/or phosphorus movement to surface and/or ground waters to the extent necessary to meet the provisions of the Order.

2. Where crop material is not removed from the field, waste applications are not allowed. For example, if a pasture is not grazed or mowed (and cuttings removed from the field), waste shall not be applied to the pasture.

3. Manure and/or process wastewater will be applied to the field for use by the first crop covered by the NMP only to the extent that soil tests indicate a need for nitrogen application.

4. Nutrient application rates shall not attempt to approach a site's maximum ability to contain one or more nutrients through soil adsorption. Excess applications or applications that cause soil imbalances should be avoided. Excess manure nutrients generated by the Discharger shall be handled by export to a good steward of the manure, or the development of alternative uses.

5. Planned rates of nutrient application shall be determined based on soil test results, nutrient credits, manure and process wastewater analysis, crop requirements and growth stage, seasonal and climatic conditions, and use and timing of irrigation water.

    a. For purposes of calculating nutrient credits, mineralization rates for prior manure applications shall be determined using the values provide in Table C-1. Alternative values may be used if they are recognized by ASABE, the NRCS, and/or the University of California. Alternative mineralization rates and the source of the alternative rates must be documented in the NMP and are subject to approval of the Executive Officer.

Table C-1. Mineralization rates for nitrogen – dairy manure

Waste and nitrogen content	Years after initial application		
	1	2	3
	Percent available[a] (percent of original N applied, accumulative)		
Fresh bovine waste, 3.5% N	75	84	85.6
Dry corral manure, 2.5% N	40	55	57.7
Dry corral manure, 1.5% N	35	44.7	47.2
Dry corral manure, 1.0% N	20	28	29.4
a. Table assumes annual applications on the same site. If a one-time application, the decay series can be estimated by subtracting year 1 from year 2 and year 2 from year 3. The decay rate becomes essentially constant after 3 years.			
Source: Alison Van Eenennaam. No date. *Dairy Manure as a Soil Amendment.* University of California Cooperative Extension *after* Azevedo, J. and P. R. Stout. 1974. *Farm animal manures: an overview of their role in the agricultural environment*. University of California, Manual 44.			

Table C-5. Mineralization rates for nitrogen – other manure types

Waste and management	Years after initial application		
	1	2	3
	Percent available[a] (percent of original N applied, accumulative)		
Fresh poultry manure	90	92	93
Fresh swine or cattle manure	75	79	81
Layer manure from pit storage	80	82	83
Swine or cattle manure stored in covered storage	65	70	73
Swine or cattle manure stored in open structure or pond (undiluted)	60	66	68
Cattle manure with bedding stored in roofed area	60	66	68
Effluent from lagoon or diluted waste storage pond	40	46	49
Manure stored on open lot, cool-humid	50	55	57
Manure stored on open lot, hot-arid	45	50	53
a. Table assumes annual applications on the same site. If a one-time application, the decay series can be estimated by subtracting year 1 from year 2 and year 2 from year 3. For example, the decay series for fresh poultry manure would be 0.90, 0.02, 0.01. The decay rate becomes essentially constant after 3 years.			
Source: Table 11-9, USDA-NRCS Agricultural Waste Management Field Handbook			

b. Realistic yield goals for the crop(s) to be grown shall be used in determining crop nutrient requirements. Where historic crop yield data are available, those data must be used to determine yield goals by calculating the average of the 3 highest yields for the 5 most recent years the crop was grown in the field. Where historic crop yield data are unavailable, realistic yield goals may be based on average yields published by the

Imperial County Agriculture Commissioner using the average of the 3 highest yields for the 5 most recent years reported.[1]

Actual applications of nitrogen and phosphorus to any crop shall be limited to the amounts specified below.

Nitrogen

1. The California Nitrogen Index, located in Section I of the NRCS Field Office Technical Guide (Agronomy Technical Note No. 72), shall be used to assess the risk of nitrogen loss via leaching from each field. The manure application rates, best management practices, and other relevant variables used in the index evaluation that impact nitrogen leaching potential shall be documented in the NMP. Nitrogen shall be managed to minimize leaching in accordance with the recommendations of the Nitrogen Leaching Index as follows:

   a. **Very Low (0 – 10) or Low (>10 – 22) Risk:** Fields with a very low or low risk for N leaching may be managed using application rates and best management practices consistent with those used in the Nitrogen Index evaluation to result in the very low or low risk rating.

   b. **Medium Risk (>22 – 33):** Fields with a medium risk for N leaching may be managed using application rates and best management practices consistent with those used in the Nitrogen Index evaluation to result in the medium risk rating. The operator should consider use of practices to further reduce N loss potential and improve N use efficiency, particularly for fields where the Nitrogen Index predicts very high soil residual nitrate.

   c. **High (>33 – 45) or Very High (>45 – 58) Risk:** For fields with a high or very high risk for N leaching, nitrogen management practices must be re-evaluated. Nitrogen budgets should be used as the basis for modifying practices. Practices must be modified to reduce the nitrogen inputs that increase the risk of N leaching. Inputs of organic or inorganic N should be reduced and/or managed to better synchronize N applications with N uptake by the crop.

2. Total nitrogen from all sources including residual nitrogen in the soil and nitrogen applied in the form of manure, process wastewater, commercial fertilizer, compost, and other amendments as well as irrigation water[2] for each field shall not exceed the recommended nitrogen application rate during the year of application or harvest cycle. Additional nitrogen may be applied if the following conditions are met:

[1] The Imperial County Agricultural Commissioner's Office publishes annual Agricultural Crop and Livestock Reports on its website: http://www.co.imperial.ca.us/ag/Departments_A/agricultural_crop_&_livestock_reports.htm

[2] Where available, existing published data on irrigation water nitrogen content may be used in determining the total amount of nitrogen applied. For example, Imperial Irrigation District publishes the results water quality analyses for the All-American Canal, East Highline Canal, Central Main Canal, and Westside Main Canal: http://www.iid.com/index.aspx?page=183.

a. Plant tissue testing has been conducted and it indicates that additional nitrogen is required to obtain a crop yield typical for the soils and other local conditions;

b. The amount of additional nitrogen applied is based on the plant tissue testing and is consistent with University of California Cooperative Extension written guidelines or written recommendations from a professional agronomist;

c. The form, timing, and method of application make the nitrogen immediately available to the crop; and

d. Records are maintained documenting the need for additional applications.

Phosphorus

1. The California Phosphorus Index, located in Section I of the NRCS Field Office Technical Guide (Agronomy Technical Note No. 62), shall be used to evaluate the risk of phosphorus transport. The California Phosphorus Index shall be used to assess all fields where manure, litter, or process wastewater will be applied, regardless of whether the field is in an area with a known phosphorus impairment. Phosphorus applications shall be made to each field based on the Phosphorus Index Risk Rating as follows:

   a. **Low Risk:** Fields with low risk for P loss may receive manure at rates based on the N content of the manure and calculated to meet crop nitrogen needs based on a nitrogen budget. Commercial P fertilizers may be applied, if needed, utilizing soil or tissue sampling procedures and the P response threshold of the crop.

   b. **Medium Risk:** Fields with medium risk for P loss may receive manure at rates based on the N content of the manure and calculated to meet crop nitrogen needs based on a nitrogen budget. Commercial P fertilizers may be applied, if needed, utilizing soil or tissue sampling procedures and the P response threshold of the crop. Existing management on these fields will probably lead to higher risk over time. Risk should be monitored periodically using the P Index.

   c. **High Risk:** Fields at high risk for P loss may receive manure at rates to meet crop P requirements based on the P content of the manure and anticipated crop yield. Commercial P fertilizers or organic fertilizers may be applied, utilizing soil or tissue sampling procedures and the P response threshold of the crop. The Discharger shall prepare and implement a conservation plan that will lower the risk category to at least Medium when implemented. After implementation of the conservation plan has lowered the risk level, the actions required at the lower risk levels will apply.

   d. **Very High Risk:** Fields rated very high risk for P loss must not receive manure or other organic forms of P fertilizer. Commercial P fertilizers may be applied according to University of California guidelines, or guidelines recognized by the University, utilizing soil or tissue sampling procedures and P response thresholds for the crop. P may not be applied from any source if the Soil Test P exceeds 80 ppm (Olsen) or 120 ppm (Bray). When seeding winter vegetables into soils below 55 degrees Fahrenheit, 30 lbs./ac or less of P_2O_5 may be injected as a starter fertilizer. The Discharger shall

prepare a conservation plan that will lower the risk category to at least High when implemented. After implementation of the conservation plan has lowered the risk level, the actions required at the lower risk levels will apply.

2. A single application of phosphorus applied as manure may be made at a rate equal to the recommended phosphorus application or estimated phosphorus removal in harvested plant biomass for the crop rotation or multiple years in the crop sequence. When such applications are made, the application rate shall:

   - not exceed the recommended nitrogen application rate during the year of application, or

   - not exceed the estimated nitrogen removal in harvested plant biomass during the year of application when there is no recommended nitrogen application.

   - be consistent with the P Index risk category of the field, including:
     - applications shall not be made on fields rated Very High Risk
     - applications may be made on fields rated High Risk only where the application is consistent with the required conservation plan

   In addition, when such applications are made, no additional phosphorus may be applied until the amount applied in the single application has been removed through plant uptake and harvest (e.g., no additional applications for the number of years covered by the single application).

ATTACHMENT D – STANDARD PROVISIONS

I. STANDARD PROVISIONS – PERMIT COMPLIANCE

A. Duty to Comply

1. The Discharger must comply with all of the conditions of this Order. Any noncompliance constitutes a violation of the Clean Water Act (CWA) and the California Water Code and is grounds for enforcement action, for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. (40 C.F.R. § 122.41(a).)

2. The Discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement. (40 C.F.R. § 122.41(a)(1).)

B. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a Discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order. (40 C.F.R. § 122.41(c).)

C. Duty to Mitigate

The Discharger shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this Order that has a reasonable likelihood of adversely affecting human health or the environment. (40 C.F.R. § 122.41(d).)

D. Proper Operation and Maintenance

The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by a Discharger only when necessary to achieve compliance with the conditions of this Order. (40 C.F.R. § 122.41(e).)

E. Property Rights

1. This Order does not convey any property rights of any sort or any exclusive privileges. (40 C.F.R. § 122.41(g).)

2. The issuance of this Order does not authorize any injury to persons or property or invasion of other private rights, or any infringement of state or local law or regulations. (40 C.F.R. § 122.5(c).)

F. Inspection and Entry

The Discharger shall allow the Regional Water Board, State Water Board, United States Environmental Protection Agency (USEPA), and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law, to (40 C.F.R. § 122.41(i); Wat. Code, § 13383):

1. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order (40 C.F.R. § 122.41(i)(1));

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order (40 C.F.R. § 122.41(i)(2));

3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order (40 C.F.R. § 122.41(i)(3)); and

4. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA or the Water Code, any substances or parameters at any location. (40 C.F.R. § 122.41(i)(4).)

G. Bypass

1. Definitions

a. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. (40 C.F.R. § 122.41(m)(1)(i).)

b. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. (40 C.F.R. § 122.41(m)(1)(ii).)

2. Bypass not exceeding limitations. The Discharger may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions listed in Standard Provisions – Permit Compliance I.G.3, I.G.4, and I.G.5 below. (40 C.F.R. § 122.41(m)(2).)

3. Prohibition of bypass. Bypass is prohibited, and the Regional Water Board may take enforcement action against a Discharger for bypass, unless (40 C.F.R. § 122.41(m)(4)(i)):

a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage (40 C.F.R. § 122.41(m)(4)(i)(A));

b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance (40 C.F.R. § 122.41(m)(4)(i)(B)); and

c. The Discharger submitted notice to the Regional Water Board as required under Standard Provisions – Permit Compliance I.G.5 below. (40 C.F.R. § 122.41(m)(4)I(C).)

4. The Regional Water Board may approve an anticipated bypass, after considering its adverse effects, if the Regional Water Board determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance I.G.3 above. (40 C.F.R. § 122.41(m)(4)(ii).)

5. Notice

a. Anticipated bypass. If the Discharger knows in advance of the need for a bypass, it shall submit a notice, if possible at least 10 days before the date of the bypass. (40 C.F.R. § 122.41(m)(3)(i).)

b. Unanticipated bypass. The Discharger shall submit notice of an unanticipated bypass as required in Standard Provisions - Reporting V.E below (24-hour notice). (40 C.F.R. § 122.41(m)(3)(ii).)

H. Upset

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the Discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. (40 C.F.R. § 122.41(n)(1).)

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Standard Provisions – Permit Compliance I.H.2 below are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review. (40 C.F.R. § 122.41(n)(2).)

2. Conditions necessary for a demonstration of upset. A Discharger who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that (40 C.F.R. § 122.41(n)(3)):

a. An upset occurred and that the Discharger can identify the cause(s) of the upset (40 C.F.R. § 122.41(n)(3)(i));

b. The permitted facility was, at the time, being properly operated (40 C.F.R. § 122.41(n)(3)(ii));

c. The Discharger submitted notice of the upset as required in Standard Provisions – Reporting V.E.2.b below (24-hour notice) (40 C.F.R. § 122.41(n)(3)(iii)); and

d. The Discharger complied with any remedial measures required under Standard Provisions – Permit Compliance I.C above. (40 C.F.R. § 122.41(n)(3)(iv).)

3. Burden of proof. In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof. (40 C.F.R. § 122.41(n)(4).)

II. STANDARD PROVISIONS – PERMIT ACTION

A. General

This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Order condition. (40 C.F.R. § 122.41(f).)

B. Duty to Reapply

If the Discharger wishes to continue an activity regulated by this Order after the expiration date of this Order, the Discharger must apply for and obtain a new permit. (40 C.F.R. § 122.41(b).)

C. Transfers

This Order is not transferable to any person except after notice to the Regional Water Board. The Regional Water Board may require modification or revocation and reissuance of the Order to change the name of the Discharger and incorporate such other requirements as may be necessary under the CWA and the Water Code. (40 C.F.R. § 122.41(l)(3); § 122.61.)

III. STANDARD PROVISIONS – MONITORING

A. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. (40 C.F.R. § 122.41(j)(1).)

B. Monitoring results must be conducted according to test procedures under Part 136 or, in the case of sludge use or disposal, approved under Part 136 unless otherwise specified in Part 503 unless other test procedures have been specified in this Order. (40 C.F.R. § 122.41(j)(4); § 122.44(i)(1)(iv).)

IV. STANDARD PROVISIONS – RECORDS

A. Except for records of monitoring information required by this Order related to the Discharger's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by Part 503), the Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Regional Water Board Executive Officer at any time. (40 C.F.R. § 122.41(j)(2).)

B. Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements (40 C.F.R. § 122.41(j)(3)(i));

2. The individual(s) who performed the sampling or measurements (40 C.F.R. § 122.41(j)(3)(ii));

3. The date(s) analyses were performed (40 C.F.R. § 122.41(j)(3)(iii));

4. The individual(s) who performed the analyses (40 C.F.R. § 122.41(j)(3)(iv));

5. The analytical techniques or methods used (40 C.F.R. § 122.41(j)(3)(v)); and

6. The results of such analyses. (40 C.F.R. § 122.41(j)(3)(vi).)

C. Claims of confidentiality for the following information will be denied (40 C.F.R. § 122.7(b)):

1. The name and address of any permit applicant or Discharger (40 C.F.R. § 122.7(b)(1)); and

2. Permit applications and attachments, permits and effluent data. (40 C.F.R. § 122.7(b)(2).)

V. STANDARD PROVISIONS – REPORTING

A. Duty to Provide Information

The Discharger shall furnish to the Regional Water Board, State Water Board, or USEPA within a reasonable time, any information which the Regional Water Board, State Water Board, or USEPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order or to determine compliance with this Order. Upon request, the Discharger shall also furnish to the Regional Water Board, State Water Board, or USEPA copies of records required to be kept by this Order. (40 C.F.R. § 122.41(h); Wat. Code, § 13267.)

B. Signatory and Certification Requirements

1. All applications, reports, or information submitted to the Regional Water Board, State Water Board, and/or USEPA shall be signed and certified in accordance with Standard Provisions – Reporting V.B.2, V.B.3, V.B.4, and V.B.5 below. (40 C.F.R. § 122.41(k).)

2. All permit applications shall be signed by a general partner or the proprietor, respectively. (40 C.F.R. § 122.22(a)(2).)

3. All reports required by this Order and other information requested by the Regional Water Board, State Water Board, or USEPA shall be signed by a person described in Standard Provisions – Reporting V.B.2 above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

a. The authorization is made in writing by a person described in Standard Provisions – Reporting V.B.2 above (40 C.F.R. § 122.22(b)(1));

b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) (40 C.F.R. § 122.22(b)(2)); and

c. The written authorization is submitted to the Regional Water Board and State Water Board. (40 C.F.R. § 122.22(b)(3).)

4. If an authorization under Standard Provisions – Reporting V.B.3 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Standard Provisions – Reporting V.B.3 above must be submitted to the Regional Water Board and State Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative. (40 C.F.R. § 122.22(c).)

5. Any person signing a document under Standard Provisions – Reporting V.B.2 or V.B.3 above shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure

that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." (40 C.F.R. § 122.22(d).)

C. Monitoring Reports

1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program (Attachment E) in this Order. (40 C.F.R. § 122.22(l)(4).)

2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Regional Water Board or State Water Board for reporting results of monitoring of sludge use or disposal practices. (40 C.F.R. § 122.41(l)(4)(i).)

3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under Part 136 or, in the case of sludge use or disposal, approved under Part 136 unless otherwise specified in Part 503, or as specified in this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Regional Water Board. (40 C.F.R. § 122.41(l)(4)(ii).)

4. Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order. (40 C.F.R. § 122.41(l)(4)(iii).)

D. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Order, shall be submitted no later than 14 days following each schedule date. (40 C.F.R. § 122.41(l)(5).)

E. Twenty-Four Hour Reporting

1. The Discharger shall report any noncompliance that may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Discharger becomes aware of the circumstances. A written submission shall also be provided within five (5) days of the time the Discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. (40 C.F.R. § 122.41(l)(6)(i).)

2. The following shall be included as information that must be reported within 24 hours under this paragraph (40 C.F.R. § 122.41(l)(6)(ii)):

a. Any unanticipated bypass that exceeds any effluent limitation in this Order. (40 C.F.R. § 122.41(l)(6)(ii)(A).)

b. Any upset that exceeds any effluent limitation in this Order. (40 C.F.R. § 122.41(l)(6)(ii)(B).)

3. The Regional Water Board may waive the above-required written report under this provision on a case-by-case basis if an oral report has been received within 24 hours. (40 C.F.R. § 122.41(l)(6)(iii).)

F. Planned Changes

The Discharger shall give notice to the Regional Water Board as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required under this provision only when (40 C.F.R. § 122.41(l)(1)):

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in section 122.29(b) (40 C.F.R. § 122.41(l)(1)(i)); or

2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in this Order. (40 C.F.R. § 122.41(l)(1)(ii).)

3. The alteration or addition results in a significant change in the Discharger's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan. (40 C.F.R.§ 122.41(l)(1)(iii).)

G. Anticipated Noncompliance

The Discharger shall give advance notice to the Regional Water Board or State Water Board of any planned changes in the permitted facility or activity that may result in noncompliance with General Order requirements. (40 C.F.R. § 122.41(l)(2).)

H. Other Noncompliance

The Discharger shall report all instances of noncompliance not reported under Standard Provisions – Reporting V.C, V.D, and V.E above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting V.E above. (40 C.F.R. § 122.41(l)(7).)

I. Other Information

When the Discharger becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any

report to the Regional Water Board, State Water Board, or USEPA, the Discharger shall promptly submit such facts or information. (40 C.F.R. § 122.41(l)(8).)

VI. STANDARD PROVISIONS – ENFORCEMENT

A. The Regional Water Board is authorized to enforce the terms of this permit under several provisions of the Water Code, including, but not limited to, sections 13385, 13386, and 13387.

VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

A. Non-Municipal Facilities

Existing manufacturing, commercial, mining, and silvicultural Dischargers shall notify the Regional Water Board as soon as they know or have reason to believe (40 C.F.R. § 122.42(a)):

1. That any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels" (40 C.F.R. § 122.42(a)(1)):

a. 100 micrograms per liter (µg/L) (40 C.F.R. § 122.42(a)(1)(i));

b. 200 µg/L for acrolein and acrylonitrile; 500 µg/L for 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol; and 1 milligram per liter (mg/L) for antimony (40 C.F.R. § 122.42(a)(1)(ii));

c. Five (5) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge (40 C.F.R. § 122.42(a)(1)(iii)); or

d. The level established by the Regional Water Board in accordance with section 122.44(f). (40 C.F.R. § 122.42(a)(1)(iv).)

2. That any activity has occurred or will occur that would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following “notification levels" (40 C.F.R. § 122.42(a)(2)):

a. 500 micrograms per liter (µg/L) (40 C.F.R. § 122.42(a)(2)(i));

b. 1 milligram per liter (mg/L) for antimony (40 C.F.R. § 122.42(a)(2)(ii));

c. Ten (10) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge (40 C.F.R. § 122.42(a)(2)(iii)); or

d. The level established by the Regional Water Board in accordance with section 122.44(f). (40 C.F.R. § 122.42(a)(2)(iv).)

ATTACHMENT E – MONITORING AND REPORTING PROGRAM

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ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

Title 40 of the Code of Federal Regulations (C.F.R.) § 122.48 requires that all National Pollutant Discharge Elimination System (NPDES) permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the Regional Water Quality Control Board (Regional Water Board) to require technical and monitoring reports. This MRP establishes monitoring and reporting requirements, which implement the federal and California regulations.

I. GENERAL MONITORING PROVISIONS

A. Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring locations specified below and, unless otherwise specified, before the monitored flow joins or is diluted by any other waste stream, body of water, or substance. Monitoring locations shall not be changed without notification to and the approval of this Regional Water Board.

B. All analyses shall be conducted at a laboratory certified for such analyses by the State Department of Public Health, unless otherwise specified by this Order or Monitoring and Reporting Program. Laboratories analyzing monitoring samples shall be certified by the Department of Public Health, in accordance with the provision of Water Code section 13176, and must include quality assurance/quality control data with their reports.

C. The collection, preservation and holding times of all samples shall be in accordance with the test procedures under 40 C.F.R. part 136 (revised as of May 14, 1999) "Guidelines Establishing Test Procedures for the Analysis of Pollutants," promulgated by the United States Environmental Protection Agency (USEPA), unless otherwise specified in this MRP. In addition, the Regional Water Board and/or USEPA, at their discretion, may specify test methods that are more sensitive than those specified in 40 C.F.R. part 136.

D. The permittee must utilize analytical methods specified in this permit, see Attachment C. If no test procedure is specified, the permittee shall analyze the pollutant using:

1. A test procedure listed in 40 C.F.R. § 136.3; or

2. An alternative test procedure approved by USEPA as provided in 40 C.F.R. §§ 136.4 or 136.5; or;

3. A test procedure listed in 40 C.F.R. part 136, with modifications allowed by USEPA as provided in 40 C.F.R. § 136.6.

Guidance on procedures for approval of alternative and new test procedures can be obtained from the following references: *Protocol for EPA Approval of Alternative Test Procedures for Organic and Inorganic Analytes in Wastewater and Drinking Water* (EPA 821-B-98-002, March 1999); and *Protocol for EPA Approval of New Methods for Organic and Inorganic Analytes in Wastewater and Drinking Water* (EPA 821-B-98-003, March 1999).

E. In accordance with the test procedures under Part 136, samples shall be analyzed as soon as possible after collection.

F. All monitoring instruments and devices used by the Discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy. All flow measurement devices shall be calibrated at least once per year to ensure continued accuracy of the devices.

G. Monitoring results, including noncompliance, shall be reported at intervals and in a manner specified in this MRP.

H. Whenever the Discharger monitors any pollutant more frequently than is required by this Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the discharge monitoring report specified by the Executive Officer.

I. Except for data determined to be confidential under Section 308 of the Clean Water Act (CWA), all reports prepared in accordance with the terms of this general permit shall be available for public inspection at the offices of the Regional Water Quality Control Board and the Regional Administrator of the USEPA. As required by the CWA, effluent data shall not be considered confidential. Knowingly making any false statements on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the Act and Section 13387 of the California Water Code.

II. MONITORING LOCATIONS

The Discharger shall establish the following monitoring locations to demonstrate compliance with the effluent limitations, discharge specifications, and other requirements in this Order:

Table E-1. Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
Production Area Discharge Point 001	EFF-001	Discharges from the production area, after exiting the production area and before contact with the receiving water and/or dilution by any other water or waste. If more than one production area discharge point is authorized by the General Permit, monitoring locations shall be named EFF-001A, EFF-001B, etc.
Land Application Area Discharge Point 002	EFF-002	Discharges from the land application area(s), including discharges from tile drainage systems, after exiting the land application area and before contact with the receiving water and/or dilution by any other water or waste. If more than one land application area discharge point is authorized by the General Permit, monitoring locations shall be named EFF-002A, EFF-002B, etc.
Receiving Surface Water	RSW-001	Receiving water monitoring location not to exceed 100 feet upstream from the location where the discharge from the production area or land application area enters the receiving water.
Receiving Surface Water	RSW-002	Receiving water monitoring location not to exceed 50 feet downstream from the location where the discharge from the production area or land application area enters the receiving water.
Receiving Ground Water[1]	RGW-001	Ground water monitoring wells installed to implement a ground water monitoring program, as required by the Executive Officer. If more than one ground water monitoring well is installed, monitoring locations shall be named RGW-001, RGW-002, etc.

[1] Applies to Dischargers required by the Executive Officer, upon review of the EWMP, to prepare a ground water monitoring program.

III. INFLUENT MONITORING REQUIREMENTS – NOT APPLICABLE

IV. EFFLUENT MONITORING REQUIREMENTS

A. Monitoring Locations EFF-001 and EFF-002

1. The Discharger shall monitor production area and land application area discharges (except agricultural stormwater discharges to waters of the U.S.) at EFF-001 and EFF-002 (including EFF-001A, EFF-001B, etc. and EFF-002A, EFF-002B, etc., as applicable) as follows:

Table E-2. Effluent Monitoring at EFF-001 and EFF-002

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method and ML
Date of discharge	n/a	n/a		n/a
Time of discharge	n/a	n/a		n/a
Volume	Gallons or Acre-inches	Estimate	1x/Discharge Event	See Section I.C and I.D of the MRP
Nitrate-Nitrogen	mg/L	Composite[1]		
Total Kjeldahl Nitrogen	mg/L	Composite[1]		
Phosphorus, Total	mg/L	Composite[1]		

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method and ML
(as P)				
Dissolved Oxygen	mg/L	Composite[1]		
Total Dissolved Solids (TDS)	mg/L	Composite[1]		
Total Suspended Solids (TSS)	mg/L	Composite[1]		
E. coli	MPN/100 mL	Composite[1]		
Fecal Coliform	MPN/100 mL	Composite[1]		
Enterococcus[2]	MPN/100 mL	Composite[1]		

[1] A representative composite sample of wastewater shall be prepared based on a minimum of three time-series samples collected during a discharge event that are representative of the beginning, middle, and end of the wastewater discharge. These samples shall be combined in a single container, mixed, and poured into a clean container provided by or approved by the laboratory that will receive the samples.

[2.] For discharges to the New River

2. The Discharger shall orally report to the Governor's Office of Emergency Services (800) 852-7550 and Regional Water Board (760) 346-7491, the discharge event as soon as: (1) the Discharger has knowledge of the discharge, (2) notification is possible, and (3) notification can be provided without substantially impeding cleanup or other emergency measures. The oral notification shall be followed by a written report to be provided within 5 days of the initial oral notification, in accordance with section XI.D of the MRP.

3. Monitoring results shall be recorded and submitted in accordance with section X and XI.B.3 of the MRP.

4. Records of discharge shall be maintained using the Discharge Notification Form provided as Attachment J.

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS – NOT APPLICABLE

VI. LAND DISCHARGE MONITORING REQUIREMENTS – NOT APPLICABLE

VII. RECLAMATION MONITORING REQUIREMENTS – NOT APPLICABLE

VIII. RECEIVING WATER MONITORING REQUIREMENTS

A. Monitoring Location RSW-001

1. When there is a discharge from the concentrated animal feeding operation (CAFO), the Discharger shall monitor the receiving water at RSW-001 as follows. In the event that no receiving water is present at RSW-001, no receiving water monitoring data are required for RSW-001:

Table E-3. Receiving Water Monitoring Requirements at RSW-001 (Upstream)

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
pH	Standard Units	Grab	1x/Discharge Event	See Section I.C and I.D of the MRP
Temperature	°F	Grab		
Nitrate-Nitrogen	mg/L	Grab		
Total Kjeldahl Nitrogen	mg/L	Grab		
Phosphorus, Total (as P)	mg/L	Grab		
Dissolved Oxygen	mg/L	Grab		
TDS	mg/L	Grab		
TSS	mg/L	Grab		
E. coli	MPN/100 mL	Grab		
Fecal Coliform	MPN/100 mL	Grab		
Enterococcus[1]	MPN/100 mL	Grab		
[1.] For discharges to the New River				

2. Records of surface receiving water monitoring shall be maintained in accordance with section X of the MRP and reported in accordance with section XI.B.2 of the MRP.

B. Monitoring Location RSW-002

1. When there is a discharge from the CAFO, the Discharger shall monitor the receiving water at RSW-002 as follows. In the event that no receiving water is present at RSW-001 and the water present at RSW-0002 is composed entirely of effluent from the discharge, no receiving water monitoring data are required for RSW-002:

Table E-4. Receiving Water Monitoring Requirements at RSW-002 (Downstream)

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
pH	Standard Units	Grab	1x/Discharge Event	See Section I.C and I.D of the MRP
Temperature	°F	Grab		
Nitrate-Nitrogen	mg/L	Grab		
Total Kjeldahl Nitrogen	mg/L	Grab		
Phosphorus, Total (as P)	mg/L	Grab		
Dissolved Oxygen	mg/L	Grab		
TDS	mg/L	Grab		
TSS	mg/L	Grab		
E. coli	MPN/100 mL	Grab		
Fecal Coliform	MPN/100 mL	Grab		
Enterococcus[1]	MPN/100 mL	Grab		
[1.] For discharges to the New River				

2. Records of surface receiving water monitoring shall be maintained in accordance with section X of the MRP and reported in accordance with section XI.B.2 of the MRP.

C. Monitoring Location RGW-001

1. Upon receiving the EWMP, the Regional Water Board's Executive Officer shall determine the need to prepare a ground water monitoring program on a case-by-case basis. Such a monitoring program would require the installation of monitoring wells at the facility. Dischargers that are required by the Executive Officer to prepare a ground water monitoring program shall monitor all monitoring locations RGW-001, RGW-002, etc. as follows:

Table E-5. Ground Water Monitoring at RGW-001

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Total Dissolved Solids	mg/L	Grab	1x/Quarter[1]	See Section I.C and I.D of the MRP
Nitrate-Nitrogen	mg/L	Grab		
pH	Standard Units	Grab		
E. coli	MPN/100 mL	Grab		
Fecal Coliform	MPN/100 mL	Grab		
Enterococcus[2]	MPN/100 mL	Grab		

[1] Quarterly sampling shall be conducted in January, April, July, and October
[2] For facilities adjacent to the New River

2. Ground water elevation and gradient shall be determined when quarterly monitoring is conducted.

3. Ground water monitoring results shall be recorded in accordance with section X of the MRP and submitted with the annual report.

IX. OTHER MONITORING REQUIREMENTS

A. Production Area Visual Inspections – Applicable To CAFOs That Confine Dairy Cows, Cattle, Swine, Poultry And Veal Calves

1. The Discharger shall conduct visual inspections of the production area as follows, in accordance with the requirements of section V.C.1 of this Order.

Table E-6. Production Area Visual Inspections

Inspection Type	Minimum Monitoring Frequency
All stormwater diversion devices, runoff diversion structures, and devices channeling contaminated stormwater to wastewater storage and containment structures	1x/Week
All water lines, including drinking water and cooling water lines	1x/Day[1]
Manure, litter, and process wastewater impoundments, noting the level of all open surface liquid impoundments as indicated by the depth marker installed in accordance with section V.B.1.c of this Order.	1x/Week

2. The Discharger shall maintain complete on-site records in accordance with section X.C of the MRP.

3. The Discharger shall certify in the annual report that production area visual inspections have been documented as required.

B. Production Area Visual Inspections – Applicable to All CAFOs

1. The Discharger shall conduct visual inspections of the production area as follows:

Table E-7. Production Area Visual Inspections

Inspection Type	Minimum Monitoring Frequency
All storm water containment structures	During each significant storm event
Manure and wastewater storage areas and land application areas, noting any discharges from the property that is under control of the Discharger	1x/Day during land application events

2. The Discharger shall record the approximate time of each storm-related discharge that results in off-property discharges of stormwater commingled with wastewater or manure, and its approximate duration.

3. The results of all inspections required by this section IX.B shall be recorded in accordance with section X.C of the MRP. Records shall be maintained on site at the permitted facility for a period of 5 years, in accordance with section IV of Attachment D, Standard Provisions – Records and shall be submitted with the annual report.

C. Manure, Litter, and Process Wastewater Monitoring – Applicable to CAFOs that Apply Manure, Litter, or Process Wastewater to Land Under the CAFO's Control or to Large CAFOs that Transfer Manure, Litter, or Process Wastewater to Other Persons

1. The Discharger shall conduct sampling and analysis as follows, in accordance with the requirements of sections V.C.2.b.ii and VII.C.3.b.iii of this Order. This monitoring is for nutrient management and is expected to be part of the Nutrient Management Plan (NMP) for Dischargers that land apply manure, litter, or process wastewater. All Large CAFOs shall provide the results of the required monitoring to recipients of any manure, litter, or process wastewater transferred to other persons, in accordance with section VII.C.5.a.i of this Order. Monitoring shall be performed to determine the nutrient and salt content of process wastewater and manure separately.

Table E-8. Manure, Litter, and Process Wastewater Monitoring

Parameter	Units[a]	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Ammonium-Nitrogen	mg/L mg/kg lb/ton lb/1,000 gallons	Consistent with Technical Standards for Nutrient Management (Attachment C)	1x/Year	Consistent with Technical Standards for Nutrient Management (Attachment C)
Total Kjeldahl Nitrogen				
Phosphorus, Total				
pH	Standard Units			
Percent moisture	%			
a. Results shall be reported in the units appropriate to the type of material analyzed (solid or liquid) and that support the required land application rate calculations, as applicable.				

2. Dischargers that apply manure, litter, or process wastewater to land under the CAFO's control shall inspect land application equipment for leaks as follows:

   a. Solid manure application equipment: a minimum of once annually

   b. Liquid manure application equipment: a minimum of once daily during application

3. Records of monitoring results shall be maintained on site in accordance with section X of the MRP.

D. Soil Monitoring – Applicable to CAFOs that Apply Manure, Litter, or Process Wastewater to Land Under the CAFO's Control

1. Dischargers that land apply manure, litter, or process wastewater shall conduct soil sampling and analysis as follows, in accordance with the requirements of sections V.C.2.b.ii and VII.C.3.b.iii of this Order. This monitoring is for nutrient management and is expected to be part of the NMP.

Table E-9. Soil Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Soluble Phosphorus	mg/kg lbs/acre	Consistent with Technical Standards for Nutrient Management (Attachment C)	1x/5 Years	Consistent with Technical Standards for Nutrient Management (Attachment C)
pH	Standard Units			

2. Records of monitoring results shall be maintained on site in accordance with section X of the MRP.

E. Materials Monitoring – Applicable to CAFOs that Operate On-site Composting Operations

1. Dischargers with on-site composting operations that are operated by the CAFO owner or operator shall conduct materials monitoring as follows, in accordance with the requirements of section VII.C.3.d.xi of this Order.

Table E-10. Materials Monitoring Record Keeping Requirements

Parameter	Units	Frequency
Quantity of manure received from each source	tons	1x/Month
Quantity of greenwaste received from each source		
Quantity of fertilizer received from each source		
Quantity of composted material shipped off site		
Estimated quantity of raw materials on site		
Estimated quantity of in-process-inventory on site		
Estimated quantity of finished compost on site		

2. Monitoring results shall be recorded in accordance with section X of the MRP and submitted with the annual report.

3. The Discharger shall maintain trucking manifests in accordance with the requirements of section X.D of the MRP.

F. Flood Protection and Storm Water Monitoring – Applicable to CAFOs that Operate On-site Composting Operations

1. The Discharger shall inspect all internal and external flood protection facilities at least quarterly and following each storm which generates any storm water flow through the drainage system.

2. The Discharger shall monitor, collect, and analyze samples of stormwater discharges from composting operations as specified in table E-10.

Table E-11. Storm Water Discharge Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Total Suspended Solids	mg/L	Grab	1x/Discharge Event	See Section I.C and I.D of the MRP
pH	pH units	Grab		
Specific Conductance	µmhos/cm	Grab		
Total Organic Carbon[1]	mg/L	Grab		
Iron	mg/L	Grab		
Nitrate+Nitrite Nitrogen	mg/L	Grab		
Lead	µg/L	Grab		
Hardness (measured as $CaCO_3$)	mg/L	Grab		
Zinc	µg/L	Grab		
Phosphorus	mg/L	Grab		

[1] Oil and grease (total oil and grease shall include the polar and non-polar fraction of oil and grease materials) may be substituted for total organic carbon.

3. The Discharger shall document any erosion control or drainage problems and/or related maintenance.

4. Flood Protection Monitoring results shall be reported in accordance with section XI.E of the MRP.

5. Storm water discharge monitoring results shall be reported with the annual report in accordance with section XI.C of the MRP.

X. RECORD KEEPING REQUIREMENTS

All records shall be retained on site at the permitted operation for a period of five (5) years from the date they are created and made available to the Regional Water Board or its designee upon request.

A. Manure Transfer Records – Applicable to Large CAFOs

1. The Discharger shall record each manure-hauling event on a manure tracking manifest form (Attachment H). These records shall include the following:

c. Date of transfer;

d. Amount of manure, litter, and/or process wastewater that leaves the permitted operation; and

e. Name and address of the recipient

2. The Discharger shall certify in the annual report that manure tracking manifests have been prepared as required.

B. Nutrient Management Plan – Applicable to CAFOs that Apply Manure, Litter, or Process Wastewater to Land Under the CAFO's Control

1. The Discharger shall maintain on-site a current site-specific NMP that reflects existing operational characteristics.

2. The Discharger shall maintain on-site all necessary records to document that the NMP is being implemented in accordance with the applicable nutrient management practices defined in sections V.C.2 and VII.C.3.b of this Order.

3. These records shall be submitted in accordance with the MRP or otherwise made available to the Regional Water Board upon request.

C. Operation and Maintenance Records – Applicable to All CAFOs

1. The Discharger shall maintain the records described in Table E-12.

Table E-12. Operation and Maintenance Record Keeping Requirements

Parameter	Units	Frequency
Applicable to CAFOs that Confine Dairy Cows, Cattle, Swine, Poultry, and Veal Calves		
Documentation of visual inspection of all water lines	N/A	1x/Day[1]
Documentation of visual inspections of manure, litter, and process wastewater impoundments, stormwater diversions structures, runoff diversion structures, and devices channeling contaminated stormwater to wastewater storage and containment structures	N/A	1x/Week
Documentation of depth of manure and process wastewater in all liquid impoundments	feet	1x/Week
Documentation of all actions taken to correct deficiencies identified as a result of the production area visual inspections. Deficiencies not corrected within 30 days shall be accompanied by an explanation of the factors preventing immediate correction.	N/A	As necessary
Applicable to All CAFOs		
Documentation of visual inspections of all storm water containment structures	N/A	During each significant storm event

Parameter	Units	Frequency
Documentation of visual inspections of manure and wastewater storage areas including records of any discharges from the property that is under control of the Discharger	N/A	1x/Day during land application events
Design documentation for all manure, litter, and wastewater storage structures including the following information:		
a. Volume for solids accumulation	Cubic yards or gallons	Once in the permit term unless revised
b. Design treatment volume		
c. Total design storage volume2		
d. Days of storage capacity	Days	
Documentation of animal mortality handling practices	N/A	As necessary
Documentation of controls to prevent the inappropriate introduction of chemicals into manure, wastewater, and stormwater handling systems.	N/A	As necessary
Implementation and maintenance of conservation practices implemented to control runoff of pollutants from the production area.	N/A.	As necessary

[1] Visual inspections shall take place daily. The completion of such inspections may be documented in a manner appropriate to the operation, either by maintaining a daily log or by making a weekly entry, when updating other weekly records that required daily inspections have been completed.

[2] Total design volume includes normal precipitation less evaporation on the surface of the structure for the storage period, normal runoff from the production area for the storage period, 25-year, 24-hour (or other design storm used for demonstrating compliance with zero discharge requirements for new swine poultry, and veal calf CAFOs) runoff from the production area, and residual solids.

2. Records of visual inspections of storm water management structures and water lines shall be maintained using the Weekly Storm Water and Wastewater Management Structure and Water Lines Inspection Log Sheet provided as Attachment I.

D. Land Application Records – Applicable to All CAFOs

Dischargers who land apply manure, litter, or process wastewater shall maintain the records described in Table E-13.

Table E-13. Land Application Record Keeping Requirements

Parameter	Units	Frequency
Documentation of the crop and expected yield for each field	bushel/acre tons/acre	Seasonally
Documentation of the test methods and sampling protocols used to sample and analyze manure, litter, and wastewater and soil	N/A	Once in the permit term unless revised
Documentation of the basis for determining the application rates used for each field where manure, litter, or wastewater is applied	N/A	
Documentation showing the total nitrogen and phosphorus to be applied to each field including nutrients from the application of manure, litter, and wastewater and other sources	pounds/acre	
For each land application event where manure, litter, or process wastewater is applied, documentation of the following by field:		
a. Date of application	Month/day/year	1x/Day
b. Method of application	N/A	

Parameter	Units	Frequency
c. Weather conditions at the time of application and for 24 hours prior to and following application	N/A	
d. Total amount of nitrogen and phosphorus applied including quantity/volume of manure, litter, or process wastewater applied including calculations	pounds/acre	
Documentation of dates of manure application equipment inspection:	Month/day/year	
a. Solid manure application equipment		1x/Year
b. Liquid manure application equipment		1x/Day During Land Application
Results of annual calculation of the amount of manure, litter, and process wastewater to be land applied, conducted as required in section VII.C.3.b.iv(f)	Tons/acre Gallons/acre	1x/Year
Documentation of visual inspections of land application areas, including records of any discharges from the property that is under control of the Discharger	N/A	1x/Day during land application events

E. Trucking Manifests – Applicable to CAFOs that Operate On-site Composting Operations

1. The Discharger shall maintain on-site, in an orderly manner, trucking manifests (or its equivalent). These should clearly indicate the amounts, dates and sources/destinations of all incoming/outgoing material.

2. These documents shall be available for Regional Water Board staff review.

XI. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

1. The Discharger shall comply with all Standard Provisions (Attachment D) related to monitoring, reporting, and recordkeeping.

2. The results of any analysis taken more frequently than required using analytical methods, monitoring procedures and performed at the locations specified in this MRP shall be reported to the Regional Water Board.

3. The Discharger shall ensure laboratory analytical results are consistent with the requirements contained in 40 C.F.R. part 136, where appropriate, with regard to significant figures. Part 136 specifies for some analytical methods, the number of significant figures to which measurements are made.

4. The Discharger shall report promptly in writing to the Regional Water Board of any changes or proposed changes in the size of the animal population, if it increases beyond the design capacity of the facility specified in the EWMP.

B. Electronic Self-Monitoring Reports (eSMRs)

1. At any time during the term of this permit, the State or Regional Water Board may notify the Discharger to electronically submit Self-Monitoring Reports (SMRs) using

the State Water Board's California Integrated Water Quality System (CIWQS) Program Web site (http://www.waterboards.ca.gov/ciwqs/index.html). Until such notification is given, the Discharger shall submit hard copy SMRs. The CIWQS Web site will provide additional directions for SMR submittal in the event there will be service interruption for electronic submittal.

2. Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule:

Table E-14. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On…	Monitoring Period	SMR Due Date
1/Quarter	October 1, 2014	January 1 – March 31 April 1 – June 30 July 1 – September 30 October 1 – December 31	Submit with Annual Report
1/Year	October 1, 2014	January 1 through December 31	February 15
1x/Discharge Event	October 1, 2014	January 1 through December 31	Oral: As soon as possible after learning of the discharge without impeding emergency measures Written: Within 5 days of the oral notification

3. Reporting Protocols. The Discharger shall report with each sample result the applicable reported Minimum Level (ML) and the current Method Detection Limit (MDL), as determined by the procedure in Part 136.

The Discharger shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

a. Sample results greater than or equal to the reported ML shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).

b. Sample results less than the RL, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified," or DNQ. The estimated chemical concentration of the sample shall also be reported.

For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ as well as the words "Estimated Concentration" (may be shortened to "Est. Conc."). The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy (+/- a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.

c. Sample results less than the laboratory's MDL shall be reported as "Not Detected," or ND.

d. Dischargers are to instruct laboratories to establish calibration standards so that the ML value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from extrapolation beyond the lowest point of the calibration curve.

C. Annual Reports

1. By February 15 of each year, the Discharger shall submit an Annual Report (Attachment G) for the previous calendar year.

2. The Discharger shall attach a cover letter to the Annual Report. The information contained in the cover letter shall clearly identify violations of the WDRs and report any noncompliance that occurred during the year. Further, the cover letter shall discuss corrective actions taken or planned; and the proposed time schedule for corrective actions. Identified violations shall include a description of the requirement that was violated and a description of the violation.

D. Unauthorized Discharges

The Discharger shall notify the Office of Emergency Services ((800) 852-7550), the local health officer or directors of environmental health with jurisdiction over affected water bodies, and the Regional Water Board ((760) 346-7491) by telephone to report any noncompliance that may endanger human health or the environment as soon as: (1) the Discharger has knowledge of the discharge, (2) notification is possible, and (3) notification can be provided without substantially impeding cleanup or other emergency measures. During non-business hours, the Discharger shall leave a voice message on the Regional Water Board's voice recorder.

Although State and Regional Water Boards do not have duties as first responders, it is important to ensure that the agencies that do have first responder duties are notified in a timely manner in order to protect public health and beneficial uses. To carry out this objective, the following notification requirements are to be implemented:

1. A certification submitted to the Regional Water Board as soon as possible but no later than twenty-four (24) hours after becoming aware of a discharge to a drainage channel or a surface water that the State Office of Emergency Services and the local health officer or directors of environmental health with jurisdiction over the affected water bodies have been notified of the discharge, and

2. A written report that shall be submitted to the Regional Water Board within 5 business days of the time the Discharger becomes aware of the discharge. The written report shall contain:

a. The approximate date and time of the discharge;

b. The flow rate and duration of the discharge;

c. A description of the noncompliance including the specific type and source of the waste discharges (e.g., overflow from holding pond, rainfall runoff from the manure storage areas, etc.) and the cause of the noncompliance; and

d. The anticipated time to achieve full compliance and a time schedule and a plan to implement necessary corrective actions to reduce, eliminate, and prevent the recurrence of the discharge.

3. The Discharger shall report all intentional or unintentional spills in excess of one thousand (1,000) gallons occurring within the facility to the Regional Water Board in accordance with the above time limits.

E. Flood Protection Monitoring Reports – Applicable to CAFOs that Operate On-site Composting Operations

If significant damage to the flood protection facilities is found, the Discharger shall report this information to the Regional Water Board immediately by telephone, and transmit by letter within 2 weeks of its occurrence the following information:

1. Location and extent of damage;

2. Interim measures to be taken to assure that no wastes are discharged from the facility; and

3. Time schedule for repairs.

F. Revised Nutrient Management Plan Reporting – Applicable to CAFOs that Apply Manure, Litter, or Process Wastewater to Land Under the CAFO's Control

If the Discharger revises the approved NMP, the Discharger shall submit the revised NMP to the Executive Officer at least 90 days prior to implementation of the change with identification of changes from the previous version.

XII. SUMMARY OF MONITORING, RECORD-KEEPING, AND REPORTING REQUIREMENTS

Table E-15 provides a summary of monitoring, record keeping, and reporting requirements contained in the MRP. This table is provided as a tool to facilitate compliance with the monitoring, reporting and record keeping requirements of this Order. This table is not comprehensive. Dischargers must read sections referenced in the "Permit Reference" columns for the details of each requirement summarized in the table.

Table E-15. Summary of Monitoring, Record Keeping, and Reporting Requirements

Permit Reference				Requirement	Monitoring Frequency	Report Due
Order	MRP					
	Monitoring	Records	Reports			

Note: This table is provided as a tool to facilitate compliance with the monitoring, reporting, and record keeping requirements of this Order. This table is not comprehensive. Dischargers must read sections referenced in the "Permit Reference" columns for the details of each requirement summarized below.						
I. Monitoring Requirements for All CAFOs						
				Production Area Visual Inspections:		
	IX.B.1	IX.B.1, X.C	XI.C, Att. G	1) Manure, litter, and process wastewater impoundments	Weekly	Annual Report (certification)
	IX.B.1	IX.B.1, X.C		2) Storm water containment structures	During each significant storm event	N/A
	IX.B.1	IX.B.1, X.C		3) Manure and wastewater storage areas and land application areas (note any discharges from the property)	1x/Day during land application events	N/A
	IV.A	IV.A	XI.D, Att. J	Effluent Monitoring - Sample and analyze discharges from the production and land application area (except agricultural stormwater discharges)	1x/Discharge	1) As soon as possible without impeding emergency measures 2) Written report within 5 days
VII.A.2.c				Report changes in ownership or management	As necessary	Prior to change
VII.C.3.c.iv				Report modifications which would result in a change in the quality or quantity of discharges	As necessary	Prior to change
	VIII.A, VIII.B	VIII.A, VIII.B		Sample and analyze surface receiving waters upstream and downstream of the point of discharge from production and land application areas (except agricultural stormwater discharges)	1x/Discharge	1) As soon as possible without impeding emergency measures 2) Written report within 5 days
VII.C.3.c.iii	VIII.C	VIII.C		Ground Water Monitoring (only Dischargers required by the Executive Officer to prepare a ground water monitoring program): 1) Sample and analyze ground water according to the approved monitoring program 2) Determine ground water elevation and gradient	1x/Quarter	In accordance with Discharger's Ground Water Monitoring Program
II. Monitoring Requirements for Dairy, Cattle, Swine, Poultry and Veal Calf CAFOs (Items listed under section I, and the following:)						
				Production Area Visual Inspections:		

Permit Reference				Requirement	Monitoring Frequency	Report Due
Order	MRP					
	Monitoring	Records	Reports			
Note: This table is provided as a tool to facilitate compliance with the monitoring, reporting, and record keeping requirements of this Order. This table is not comprehensive. Dischargers must read sections referenced in the "Permit Reference" columns for the details of each requirement summarized below.						
V.C.1	IX.A.1	X.C, Att. I	XI.C, Att. G	1) All water lines, including drinking water or cooling water lines	1x/Day	Annual Report (certification)
	IX.A.1	X.C, Att. I	XI.C, Att. G	2) Storm water diversion devices, 3) Runoff diversion structures 4) Devices channeling contaminated storm water to storage/containment structures 5) Document level in all open surface liquid impoundments	1x/Week	Annual Report (certification)
		X.C		6) Document corrective actions	As necessary	N/A
		X.C		Design documentation for manure, litter, and wastewater storage structures	1x/permit term	N/A
IV.E		X.C		Document animal mortality handling practices	As necessary	N/A
III. Monitoring Requirements for Large CAFOs that Transfer Manure, Litter or Process Wastewater to Other Persons (Items listed under section I, items listed under section II if applicable, and the following:)						
VII.C.5.a		X.A, Att. H	XI.C	Prepare manure tracking manifest	Every manure or process wastewater hauling event	Annual Report (certification)
V.C.2.b.ii VII.C.3.b.iii VII.C.5.a.i	IX.C.1	IX.C.1		Sample and analyze manure, litter, and process wastewater	Annually	N/A
IV. Dischargers that Apply Manure, Litter, or Process Wastewater to Land Under the CAFO's Control (Items listed under section I, items listed under sections II and III if applicable, and the following:)						
V.C.2.b.ii VII.C.3.b.iii	IX.C.1	IX.C.1		Sample and analyze manure, litter, and process wastewater	1x/Year	N/A
V.C.2.b.iii	IX.C.2	X.D		Inspect land application equipment for leaks	Periodically	N/A
V.C.2.b.ii VII.C.3.b.iii	IX.D	IX.D		Soil Monitoring - Sample and analyze soil in the croplands to be used for land application of manure, litter, or process wastewater	1x/5 years	N/A

Permit Reference				Requirement	Monitoring Frequency	Report Due
Order	MRP					
	Monitoring	Records	Reports			
Note: This table is provided as a tool to facilitate compliance with the monitoring, reporting, and record keeping requirements of this Order. This table is not comprehensive. Dischargers must read sections referenced in the "Permit Reference" columns for the details of each requirement summarized below.						
V.C.2.a VII.C.3.b.v and xi		X.B X.C		Nutrient Management Plan (NMP): 1) Maintain on-site a current site-specific NMP 2) Maintain on-site documentation of NMP implementation	N/A	NMP submitted by 9/30/2014 or 90 days prior to land application
				Land Application Records:		
VII.C.3.b.v		X.D		1) Document crop and expected yield for each field	Seasonally	N/A
VII.C.3.b.v		X.D		2) Document test methods and sampling protocols used for manure, litter, wastewater, and soil monitoring 3) Document basis for determining application rates used for each field 4) Document total N and P to be applied to each field	1x/Permit Term unless revised	N/A
VII.C.3.b.v		X.D		5) Date of application 6) Method of application 7) Weather conditions at the time of, and for 24 hours before and after application 8) Total amount of N and P and total volume of manure actually applied to each field	Every land application event	N/A
VII.C.3.b.iv(f)		X.D		9) Results of annual calculation of manure, litter, or wastewater to be applied	1x/Year	N/A
VII.C.3.b.xii(a)				NMP revisions	As necessary	Submit revised NMP 90 days prior to implementing the change
V. Dischargers that Operate On-Site Composting Operations (unless covered under separate WDRs) (Items listed under section I, items listed under sections II, III and IV if applicable, and the following:)						
VII.C.3.d.iii				Composting Site Survey required if not previously submitted	Once	Within 90 days of Order effective date

Permit Reference				Requirement	Monitoring Frequency	Report Due
Order	MRP					
	Monitoring	Records	Reports			
Note: This table is provided as a tool to facilitate compliance with the monitoring, reporting, and record keeping requirements of this Order. This table is not comprehensive. Dischargers must read sections referenced in the "Permit Reference" columns for the details of each requirement summarized below.						
VII.C.3.d.xi	IX.E	IX.E	XI.C, Att. G	Materials Monitoring: 1) Monitor quantities of manure, greenwaste and fertilizer received from each source. 2) Monitor Quantity of composted material shipped off-site. 3) Estimate quantities of raw materials, in-process inventory and finished compost on-site	1x/Month	Annual Report
VII.C.3.d.xi		X.E		Maintain trucking manifests indicating amounts, dates, and sources/destinations of all incoming/outgoing material	Every hauling event	N/A
VII.C.3.d.xi	IX.F	IX.F	XI.C, Att. G	Flood Protection Monitoring: 1) Inspect all internal and external flood protection facilities associated with composting operations 2) Document erosion control or drainage problems and/or related maintenance	At least quarterly and following each storm generating storm water flow	Annual Report
			XI.E	Flood Protection Monitoring: Report significant damage to the flood protection facilities		Immediately by telephone, Written report within 2 weeks
VII.C.3.d.xi	IX.F	IX.F	XI.C, Att. G	Storm Water Monitoring: Analyze storm water discharges from composting operations	1x/Discharge	Annual Report

ATTACHMENT F – FACT SHEET

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ATTACHMENT F – FACT SHEET

As described in section I of the proposed Order, the Regional Water Board incorporates this Fact Sheet as findings of the Regional Water Board supporting the issuance of this Order. This Fact Sheet includes the legal requirements and technical rationale that serve as the basis for the requirements of this Order.

The proposed Order has been prepared under a standardized format to accommodate a broad range of discharge requirements for Dischargers in California. Only those sections or subsections of this Order that are specifically identified as "not applicable" have been determined not to apply to this Discharger. Sections or subsections of this Order not specifically identified as "not applicable" are fully applicable to this Discharger.

I. PERMIT INFORMATION

On September 27, 1995, the Board adopted Order 95-700, General Waste Discharge Requirements for Concentrated Animal Feeding Operations (CAFOs) including dairies, within the Colorado River Basin Region (NPDES No. CAG017001). Order 95-700 consolidated all requirements for CAFOs, including those for storm water runoff, into a single permit. For all CAFOs, once enrollment was granted under that Order, other permits issued by the Regional Water Board and enrollment under State Water Resources Control Board General Industrial Storm Water Permit (State Water Board Order 91-03-DWQ) were terminated. On March 14, 2001 the Regional Water Board adopted Order 01-800, superseding Order 95-700. Order 01-800 satisfied the criteria cited in 40 C.F.R. § 122.28 and, as such, served as a General National Pollutant Discharge Elimination System (NPDES) Permit.

On June 25, 2008, the Regional Water Board adopted Order R7-2008-0800, which superseded Order 01-800. To date, 31 CAFOs have been enrolled under Order R7-2008-0800, which will expire on June 25, 2013. Some of the CAFOs currently enrolled under Order R7-2008-0800 want to continue to discharge wastes. Therefore, it is necessary to renew the Waste Discharge Requirements contained in Order R7-2008-0800. The proposed Order replaces Order R7-2008-0800.

For the purposes of the proposed Order, references to the "discharger" or "permittee" in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the Discharger herein.

II. BACKGROUND

A. Definition of CAFOs

On July 30, 2012, U.S. Environmental Protection Agency (USEPA) published revisions to its Clean Water Act (CWA) regulations for CAFOs. The references to Parts 122, 123, and 412, title 40 of the Code of Federal Regulations below incorporate the revisions that are part of the final rule.

40 C.F.R. § 122.23 defines an animal feeding operation (AFO) as an operation where animals have been, are, or will be confined and fed for a total of 45 days or more in any 12-month period, and where vegetation is not sustained in the confinement area. 40

C.F.R. § 122.23 defines a CAFO as any AFO that either meets a certain animal population threshold (and, for Medium CAFOs, specific discharge criteria), or, regardless of population, is determined to be a significant contributor of pollutants to waters of the United States by the appropriate authority. The CWA states that all CAFOs are point sources, and thus are subject to NPDES permitting requirements. When considering the designation of an AFO as a CAFO as a result of being a significant contributor of pollutants, the appropriate authority (the Regional Water Board is an appropriate authority) must consider certain factors. These factors include, in part, the location of the AFO relative to surface waters, the slope, rainfall and other factors that increase the likelihood or frequency of discharges, and the impact of the aggregate amount of waste discharged from multiple AFOs in the same geographic area.

The existing Order R7-2008-0800 designated all AFOs, including all feedlots, dairies, heifer ranches, calf nurseries, and other similar facilities in the Region as CAFOs, making them subject to NPDES requirements. As noted in section II.A.6, and consistent with the 2012 revisions to the federal CAFO regulations, the proposed Order addresses discharging CAFOs, except as noted in section II.B, Exclusion of Coverage. The Regional Water Board has determined that all existing enrollees confine more than the threshold number of animals to meet the definition of a Large CAFO at 40 C.F.R. § 122.23(b)(4). New Notices of Intent (NOIs) will be evaluated on a case-by-case basis to determine whether the facilities meet the regulatory CAFO definitions or should be designated as CAFOs under the CWA.

Criteria cited in 40 C.F.R. § 122.28 state that general permits may be issued for facilities 1) involving the same or substantially similar types of operations; 2) discharging the same types of wastes; 3) having the same or similar operating conditions; 4) requiring the same or similar monitoring; and 5) that are more appropriately regulated under a general permit rather than individual permits. The types of wastes and appropriate waste discharge requirements for dairies and related facilities are similar. Given this, the CAFOs in the Region can be adequately and appropriately regulated by coverage under the terms of a general waste discharge permit.

Since 1995, the Regional Water Board has adopted a general Order in 1995, 2001, and 2008; adoption of Order R7-2013-0800 is necessary to continue oversight of the CAFOs within the Region.

B. General Permit Application and Coverage

The purpose of the proposed Order is to facilitate regulation of discharges from CAFOs. To obtain coverage under this Order, the Discharger shall submit the first annual fee, an NOI, and an Engineered Waste Management Plan (EWMP). Signing the certification on the NOI signifies the Discharger intends to comply with the provisions of this Order. An NOI must be signed to be valid.

Existing enrollees (under Order R7-2008-0800) are required to re-submit NOIs for coverage under the proposed Order. Existing enrollees are not required to re-submit EWMPs that have already been submitted under Order R7-2008-0800 if those EWMPs still accurately reflect the CAFO's current operating conditions. Dischargers that apply manure, litter, or process wastewater to land under their control must submit a Nutrient

Management Plan (NMP) that addresses the period of time the CAFO will be covered under the permit and that meets the applicable requirements of sections V.C.2 and VII.C.3.b of the proposed Order. The NMPs previously submitted under Order R7-2008-0800 do not meet these criteria and therefore must be revised and re-submitted.

C. Description of Discharge

Dairies, feedlots, and other operations that concentrate animals in a confinement area are high profile operations that generate large volumes of wastes that can impact both ground and surface water if not managed properly. Examples of CAFO wastes include manure, washwater[1] containing manure, water used to flush manure from barns and other confinement areas, stormwater runoff from manured areas, or other process wastewater. Overflow from waterers in the animal confinement areas is not considered to be a process waste stream where the overflow is captured and conveyed away from the confinement areas in an enclosed system such that the overflow does not come into contact with manure, feed or other raw materials, and the water has not come into contact with animals in the production area, other than that contact necessary for the animals' drinking (i.e., animals did not contact the water in any way that would cause manure or other wastes to be added to the water). During a previous permit term, the Regional Water Board issued a letter, dated July 11, 2001, to the enrollees that stated, "It has been determined that a facility that has overflow pipes in its drinkers which take the water through an underground piping system and discharges this water off-site, is not in violation of Order 01-800, given this water continues to have no contact with the pens themselves." The Regional Water Board has considered such discharges to be low-threat discharges, in other words, they are liquid wastes containing pollutant concentrations that are not expected to adversely impact the quality of waters of the State under ambient conditions.

CAFO wastes are typically high in ammonia, bacteria and organic matter. Stormwater runoff from manured areas also contains high concentrations of organic materials, salt (primarily total dissolved solids), phosphorus, and nitrates. In surface waters the ammonia and nitrate are highly toxic to aquatic organisms, nutrient enrichment can cause algal blooms which increase the amount of decaying organic matter in surface water, decay of organic matter from manure or algal blooms reduces the oxygen content of the water, and the bacteria poses a threat to the beneficial uses of the water. Stormwater runoff from composting operations can contain constituents similar to those found in stormwater runoff from manured areas at CAFOs. Stormwater runoff from composting operations at CAFOs can also contain other constituents depending on the amendments and additives used in the operation, which may include lime, rock phosphate, gypsum, or sulfur. Proper management of these waste streams is essential to protect the ground and the surface water resources of the Region. Section 402(p) of the CWA, as amended by the Water Quality Act of 1987 and the related regulations published by the USEPA on November 16, 1990 (40 C.F.R. parts 122 [revised on February 12, 2003], 123 and 124), requires an NPDES permit for pollutant discharges from CAFOs. The USEPA's Effluent Guidelines and Standards for Feedlots are contained in 40 C.F.R. part 412 (revised February 12, 2003, February 10, 2006, and

[1] Water used to wash cows prior to milking, milking equipment and the milk barn.

November 20, 2008). At present, 31 CAFOs exist within the Colorado River Basin Region. Most of these facilities are feedlots, with the exception of four dairies.

Manure analyses submitted by existing enrollees between 2008 and 2013 are summarized below:

Summary of Colorado River Basin Region CAFO manure nutrient analyses (all results are reported on a dry weight basis)

	Ammonia Nitrogen	Total Kjeldahl Nitrogen[a]	Total Phosphorus	Sodium[b]
No. of samples[c]	15	14	18	5
	Summary of Results (lbs/ton, dry weight basis)			
Minimum	0.1	36.7	9.2	19.6
Maximum	51.8	54.8	25.4	28.8
Median	8.3	48.1	18.2	24.4

a. Where available, reported Total Nitrogen results were substantially the same as those for TKN.
b. Provided as a proxy for salts/TDS.
c. Order R7-2008-0800 does not require reporting for manure analytical results; therefore, data are available only where they were requested or otherwise submitted to the Regional Water Board. Results that were not reported on a dry weight basis or did not provide adequate information (i.e., % moisture) to convert to a dry weight basis were not included.

Using the latest available animal population data for existing enrollees and national average values for manure generation and solids content provided in the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Agricultural Waste Management Field Handbook (Chapter 4, March 2008), it is estimated that CAFOs in the Region generate in excess of 1,000 tons of manure/day (dry weight basis). In general, the storage and land application of manure or process wastewater could result in the discharge of nutrients and salts that have the potential to adversely impact the quality of groundwater and surface water. This is particularly so if the CAFO facilities (e.g., waste ponds) are within the influence of a tilewater drainage system, or there is insufficient separation between the bottom of the pond and first encountered groundwater, or the wastes are applied to land at agronomic rates that exceed crop demand or soil needs. As described in the following sections, based on existing conditions in the Imperial Valley and the requirements of the proposed Order, the above conditions are not common to the CAFOs that will be authorized to discharge under this Order.

D. Description of Discharge Location

The CAFOs in the Region are located in the Imperial Valley. The climate of the Imperial Valley is typical of a desert area and is characterized by hot, dry summers, occasional thunderstorms, and gusty high winds with sandstorms. It is one of the most arid areas in the United States with an average annual rainfall of less than three (3) inches, and temperatures in excess of 100ºF for more than 100 days per year. The average January temperature is 54ºF, and the average July temperature is 92ºF. Evapotranspiration rates for Imperial Valley can exceed 7 ft/yr, and in hot summer months can be one-third of an inch per day.

Imperial Valley soils are formed in stratified alluvial materials and vary greatly in texture and layer thickness. Many soils are affected by soluble salts, and drainage is a problem

in the irrigated areas. These poorly drained areas are serviced by a system of underground drain lines ("tile lines") to manage soil salinity and water content. Irrigation water that has percolated through the soil, known as tilewater, is collected in the tile lines beneath the fields, and is discharged to surface drainage canals by gravity flow or a sump system. The surface drains discharge their flow mainly into the Alamo River or the New River, which are the two main tributaries of the Salton Sea. Some drains also discharge their flow directly into the Salton Sea. The drains, Alamo and New Rivers, and the Salton Sea are waters of the United States.

The main irrigated farming areas and existing CAFOs are located in the central portion of the Imperial Valley (central Imperial Valley) on the lakebed floor between the international boundary on the south and the Salton Sea on the north. The central Imperial Valley is nearly level with a slope toward the Salton Sea of nearly 0.1 percent. The slope from the east and west edges to the center is approximately 0.3 percent. The fine- and moderately fine-textured lakebed sediments are the parent materials of the Glenbar, Holtville, and Imperial soils and the underlying layers of the Meloland and Niland soils. Windblown and river channel silts and sands deposited on the lakebed are the sources of Indio, Vint, and Rositas soils and the surface layer of the Meloland soils.

The central Imperial Valley contains five primary map units that range from well drained to poorly drained:

- Imperial (nearly level, moderately well drained silty clay);
- Imperial-Holtville-Glenbar (nearly level, moderately well drained and well drained silty clay, silty clay loam, and clay loam);
- Meloland-Vint-Indio (nearly level, well-drained fine sand, loamy very fine sand, fine sandy loam, very fine sandy loam, loam and silt loam);
- Niland-Imperial (nearly level, moderately well drained gravelly sand, fine sand, silty clay, and silty clay loam, along the northeastern edge of the central Imperial Valley around the town of Niland and along the western edge of the irrigated area); and
- Fluvaquents (nearly level, poorly drained soils of undifferentiated texture, along the edge of the Salton Sea)

Approximately 480,000 acres in the Imperial Valley are considered farmable with irrigation. First encountered groundwater in the Imperial Valley typically has a relatively high salinity (i.e., total dissolved solids [TDS] concentrations range from 700 to over 15,000 mg/l). Perched groundwater can be found a few feet below the surface adjacent to unlined irrigation canals and drains, the New River, the Alamo River, and where land is currently used in agricultural production. A confined aquifer is located from approximately 80 feet below ground surface (BGS) to 450 feet BGS. A second confined aquifer is present below this; the two aquifers are separated by a low permeability aquitard that ranges in thickness from 60 to 280 feet.

E. Receiving Waters

The Water Quality Control Plan for the Colorado River Basin Region of California (Basin Plan), which was adopted on November 17, 1993, and amended on November 16, 2012, designates the beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan (including amendments adopted by the Regional Water Board to date). The proposed Order specifies requirements necessary to meet the water quality objectives and protect the beneficial uses specified in the Basin Plan.

F. Eligible Discharges

The following types of CAFOs located within the Colorado River Basin Region are eligible for coverage under this permit:

- New and existing horse, sheep, and duck CAFOs established after February 14, 1974 (note that there are no known existing horse, sheep, or duck CAFOs in the region).
- New and existing CAFOs that confine dairy cows and cattle other than veal calves.
- New and existing CAFOs that confine swine, poultry, and veal calves (note that there are no known existing swine, poultry, or veal calf CAFOs in the region).

G. Ineligible Discharges

Consistent with 40 C.F.R. § 122.23(d), AFOs that do not discharge to waters of the United States are not required to obtain authorization under the proposed Order. In addition, precipitation-related discharges from a CAFO's land application area that are composed entirely of agricultural stormwater, as defined in 40 C.F.R. § 122.23(e), are not subject to the requirements of the proposed Order. Order R7-2008-0800 designated all AFOs over a certain animal threshold as CAFOs based on their potential to be significant contributors of pollutants to waters of the United States and required all of those CAFOs to obtain authorization under the permit. After adoption of Order R7-2008-0800, the federal regulations were revised (on November 20, 2008, in response to the Second Circuit Court of Appeals' decision in *Waterkeeper Alliance et al. v. EPA* and again on July 30, 2012, in response to the Fifth Circuit Court of Appeals' decision in *National Pork Producers Council v. EPA*) to clarify that CAFOs cannot be required to obtain permit coverage for "potential" or "proposed" discharges. Consistent with those revisions, only CAFOs with actual discharges are required to obtain coverage under this permit.

Duck, horse, and sheep CAFOs established prior to February 14, 1974, are not eligible for coverage under the proposed Order because the effluent limitation guidelines (ELGs) applicable to these facilities are different than the effluent limitations established in the proposed Order. Therefore, according to NPDES regulations at 40 C.F.R. § 122.28 that provide for the issuance of general permits and Section 13263 of the California Water Code (CWC) that authorizes the Regional Water Board to prescribe general waste discharge requirements, it is not appropriate to regulate these facilities

under the proposed Order. The Regional Water Board is not aware of the existence of any duck, horse, or sheep CAFOs established prior to 1974 in the Region.

H. Summary of Existing Requirements Under Order R7-2008-0800

Order R7-2008-0800, which the proposed Order replaces, prohibited discharges to surface waters other than from facilities 1) designed, constructed and maintained to contain process wastewater, including runoff and direct precipitation resulting from a 25-year, 24-hour storm event, or, for new poultry, swine, and veal calf CAFOs, from a 100-year, 24-hour storm event, and 2) in compliance with additional measures and records for production areas. In addition, Order R7-2008-0800 required the Dischargers to develop and implement an EWMP, including specific requirements with regard to pond construction and maintenance, dead animal disposal, and land application rates. The existing Order also included specific requirements for maintaining adequate storage (including operation and maintenance of storage structures), diverting clean water from production areas, and properly handling mortalities and chemicals. Order R7-2008-0800 also required Dischargers that land-apply manure, litter, or process wastewater to submit an NMP, including specific requirements for conservation practices, manure and soil testing, protocols for nutrient management, and record keeping. Order R7-2008-0800 also required the Dischargers to submit an annual self-monitoring report. These requirements are continued in Order R7-2013-0800.

I. Compliance Summary

All of the existing Enrollees under Order R7-2008-0800 were inspected during the week of March 9, 2009. Twenty-seven (27) of the 31 existing Enrollees have been re-inspected at least once since the initial round of inspections under Order R7-2008-0800. Based on the latest inspection report and information contained in the Regional Water Board's permit file for each facility, 12 of the CAFOs enrolled under Order R7-2008-0800 are in compliance with all of the requirements of that Order; four of the existing Enrollees are currently idle (not in operation). The four facilities that are currently not in operation are still required to prepare an annual report or submit a Notice of Termination. Common deficiencies noted for the 15 remaining facilities and the four facilities not in operation include:

- Incomplete manure nutrient analyses
- EWMP incomplete or out of date
- Depth marker not installed or marked as required
- Weekly visual production area inspections not recorded

Of the facilities with incomplete EWMPs, the most common deficiencies were inadequate demonstration that the facility maintains the required wastewater storage capacity in the impoundments and that the impoundments are protected from flood inundation and washout.

The Regional Water Board sent letters to all of the facilities that were inspected. All of the facilities that are out of compliance with the existing Order are currently taking action to come into compliance with the Order.

None of the existing Enrollees have reported discharges or overflows from their facilities.

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

The requirements contained in the proposed Order are based on the requirements and authorities described in this section.

A. Legal Authorities

This Order is issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by USEPA and chapter 5.5, division 7 of the California Water Code (commencing with section 13370). It shall serve as a NPDES permit for point source discharges from CAFOs to surface waters. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the Water Code (commencing with section 13260).

B. California Environmental Quality Act (CEQA)

Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of Chapter 3 of CEQA, commencing with Section 21100 of Division 13 of the Public Resources Code.

C. State and Federal Regulations, Policies, and Plans

1. **Water Quality Control Plans.** The Regional Water Quality Control Board (Regional Water Board) adopted a Water Quality Control Plan for the Colorado River Basin (hereinafter Basin Plan) on November 17, 1993 that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan (including amendments adopted by the Regional Water Board to date). In addition, the Basin Plan implements State Water Resources Control Board (State Water Board) Resolution No. 88-63, which established state policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply. The existing and potential beneficial uses of the various surface waters that could be impacted by the discharge of CAFO wastes in the Colorado River Basin Region include one or more of the following:

    - Agricultural supply (AGR)
    - Aquaculture (AQUA)
    - Cold freshwater habitat (COLD)
    - Freshwater replenishment (FRSH)
    - Ground water recharge (GWR)
    - Hydropower generation (POW)
    - Industrial service supply (IND)

- Municipal and domestic supply (MUN)
- Non-contact water recreation (REC-II)
- Preservation of rare, threatened, or endangered species (RARE)
- Warm freshwater habitat (WARM)
- Water contact recreation (REC-I)
- Wildlife habitat (WILD)

The existing and potential beneficial uses of groundwater that could be impacted by the discharge of CAFO wastes within the Colorado River Basin Region include one or more of the following:

- Agricultural supply (AGR)
- Industrial service supply (IND)
- Municipal and domestic supply (MUN)[2]

Requirements of this Order implement the Basin Plan.

2. **Storm Water Requirements.** USEPA promulgated Federal Regulations for storm water on November 16, 1990 in 40 C.F.R. parts 122, 123, and 124. CAFOs are applicable industries under the storm water program and are obligated to comply with the Federal NPDES regulations for industrial stormwater discharges. On April 17, 1997, the State Water Board adopted the General Industrial Storm Water Permit, State Water Board Water Quality Order 97-03-DWQ, NPDES No. CAS000001. State Water Board Water Quality Order 97-03-DWQ implements the final federal regulation for storm water runoff published by the USEPA in compliance with section 402(p) of the CWA. The proposed Order, like the existing Order R7-2008-0800, includes those provisions of the General Industrial Storm Water Permit that pertain to CAFOs and CAFOs that conduct composting activities classified under Standard Industrial Classification category 287X. Once a Discharger was authorized to discharge under Order R7-2008-0800, coverage under the State Water Board's General Industrial Storm Water Permit (State Water Board Water Quality Order 97-03-DWQ) will be terminated. In the event that the permitted facility has storm water discharges associated with non-CAFO or non-composting industrial activities regulated under State Water Board's General Industrial Storm Water Permit, the Discharger shall submit a NOI and/or maintain coverage under that Order.

3. **Endangered Species Act.** The proposed Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (California Fish and Game Code section 2050 to 2097) or the Federal Endangered Species Act (16 U.S.C. Sections 1531 to 1544). This Order requires compliance with effluent limits, receiving water limits, and other

[2] At such time as the need arises to know whether a particular aquifer which has no known existing MUN use should be considered as a source of drinking water, the Regional Water Board will make such determination based on criteria listed in the "Sources of Drinking Water Policy" in Chapter 2 of the Basin Plan. An "X" placed under the MUN in Table 2-5 of the Basin Plan for a particular hydrologic unit indicates only that at least one of the aquifers in that unit currently supports a MUN beneficial use. The actual MUN usage of the Imperial hydrologic unit is limited only to a small portion of that ground water unit.

requirements to protect the beneficial uses of waters of the state. The Discharger is responsible for meeting all requirements of the applicable Endangered Species Act.

4. **Alaska Rule.** On March 30, 2000, USEPA revised its regulation that specifies when new and revised state and tribal water quality standards (WQS) become effective for CWA purposes (40 C.F.R. § 131.21, 65 Fed. Reg. 24641 (April 27, 2000)). Under the revised regulation (also known as the Alaska rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000, may be used for CWA purposes, whether or not approved by USEPA.

5. **Antidegradation Policy.** 40 C.F.R. § 131.12 requires that the state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16. Resolution No. 68-16 is deemed to incorporate the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires discharges to waters of the State be regulated to achieve the "highest water quality consistent with maximum benefit to the State." It also establishes the intent that where waters of the State are of higher quality than that required by state policies, including Water Quality Control Plans, such higher quality "shall be maintained to the maximum extent possible" unless it is demonstrated that any change in quality will be consistent with maximum benefit to people of the State, will not unreasonably affect beneficial uses, and will not result in water quality less than that described in plans and policies (e.g., violation of any water quality objective). The discharge is also required to meet waste discharge requirements that result in the best practicable treatment or control necessary to assure that pollution or nuisance will not occur, and that the highest water quality consistent with maximum benefit to the people will be maintained.

   The CAFOs that will be regulated under the proposed Order are in the central Imperial Valley. Average annual precipitation in the Imperial Valley is insignificant (< 3 inches/year). The receiving waters for discharges from existing CAFOs include the New and Alamo Rivers and Imperial Valley Drains.

   The New River is an effluent dominated surface water that exclusively carries discharges from several wastewater treatment plants, agricultural returns flows from approximately 30 Imperial Valley drains, and wastes from Mexicali, Mexico. The drains discharge tilewater and tailwater from Imperial Valley farmlands. The wastes from Mexico include agricultural runoff (tailwater), partially treated and untreated Municipal and Industrial wastewater, storm water, and urban runoff from the Mexicali Valley.

   Tailwater is irrigation water that does not percolate into the soil, and exits the lower end of the field into a drain. Tailwater tends to erode fields and thus acquire silt and sediments as it crosses and exits a field. Tilewater is water that has percolated through the soil, but is not absorbed by crops. Tilewater flushes salts from the soil; Imperial Irrigation District estimates the typical total dissolved solids (TDS)

concentration for the shallow perched groundwater that is drained through the tile lines to be approximately 5,000 ppm. This highly saline water accumulates in tile lines beneath the fields, wherein it is transported to drains by gravity flow or a sump system. The wastes from Mexico also contain pollutants (e.g., pathogens, trash, VOCs, pesticides, nutrients, raw sewage, BOD, and metals) that impair the river's beneficial uses. Consequently, "background" water quality in the New River is difficult to establish for the purpose of conducting a typical antidegradation analysis. In other words, the river has historically contained "background" water from farmland and Mexico that contain pollutants at concentrations that violate certain Basin Plan water quality objectives for those pollutants and adversely impact beneficial uses—in particular pesticides, silt/sediment, organics, nutrients, pathogens, metals, trash, and toxicity. As discussed in section III.D of this Fact Sheet, the Alamo River, which also receives highly saline water from tile drains, and the Imperial Valley Drains, are impaired by a number of chemical constituents and a sedimentation/siltation TMDL has been developed for each. The agricultural return flows from the Imperial Valley is essentially free of BOD and fecal coliform bacteria and have pH well within the receiving water quality objective of 6.0 to 9.0 pH Units for the Alamo River.

Data on the concentrations and loads of nutrients, pathogens, sediment, and other constituents in discharges from CAFOs in the Imperial Valley are not available. Enrollees under existing Order R7-2008-0800 are required to monitor production area and land application area discharges; however, no discharges have been reported from the CAFOs currently covered under the permit and consequently, analytical monitoring data have not been collected.

Discharges to Surface Waters. Discharges from production areas at CAFOs are allowed only from properly designed, constructed, operated and maintained facilities as the result of a large storm event. The majority of facilities covered under the proposed Order will be subject to a 25-year, 24-hour storm storage design standard for the production area based on best practicable control technology currently available (BPT) and best available technology economically achievable (BAT). Other CAFOs may be subject to more stringent design standards based on new source performance standards (NSPS). The 25-year, 24-hour storm event for Imperial County locations ranges from approximately 2 to 3 inches of precipitation in a 24-hour period. Since 1995, when the first permit was issued for CAFOs in the Region, National Climatic Data Center weather stations in the Imperial Valley (Brawley and El Centro) have not recorded 24-hour rainfall totals exceeding 2 inches per day. Production area discharges are likely to contain nitrogen, phosphorus, BOD, and potentially pathogens. Based on the infrequency of such discharges and the fact that they would occur only during very large storm events, such discharges are not expected to result in water quality less than prescribed in the Basin Plan.

Discharges from land application areas are controlled by the requirements to develop NMPs and implement BMPs to limit runoff of nutrients and other pollutants to surface waters. All CAFOs that land apply manure are required to submit revised NMPs that conform to the requirements of the proposed Order. The Order

requires implementation of site-specific conservation practices to control nutrient transport to surface waters. In addition, each land application site must be evaluated using the California Phosphorus Index to assess and mitigate the risk of phosphorus transport from the field to surface waters. Finally, the Order requires incorporation of surface-applied manure, which minimizes exposure of nutrients and pathogens to runoff that can transport pollutants to surface waters. Where manure incorporation is not feasible, the Order requires containment of runoff that has contacted the applied manure. The BPT and BAT limits in the proposed Order, in combination with NMP requirements, Technical Standards for Nutrient Management (Attachment C), and other required BMPs, will minimize discharges of nutrients, sediment, and pathogens from land application areas and prevent further degradation of water quality.

Discharges to Groundwaters. Storage of wastewater at CAFOs and application of CAFO-generated manure and wastewater to land have the potential to contribute pollutants to groundwater under certain conditions. In general, the highest potential for groundwater contamination from livestock agriculture occurs where soils are coarse-textured, groundwater is shallow, and precipitation is heavy. None of these conditions exist in the Imperial Valley. Daily average rainfall totals for the period of record (1951 to present) are less than 0.1 inches for every day of the year (with many days showing no recorded rainfall). According to the California Division of Water Resources, the Imperial Valley Ground Water Basin is confined under as much as 80 feet of fine-grained low permeability prehistoric lake deposits. Finally, although poorly permeable soils support development of a perched water table that may be within a few feet of the surface in some areas, well data suggest that the depth of the groundwater aquifer is at least 46 feet. The perched water table is the result of canal and irrigation water seepage and is not suitable for domestic or municipal use.

NRCS, California's Conservation Practice Standard Code 313 (CPS 313) identifies a target maximum specific discharge (unit seepage) from liquid waste storage facilities of 1×10^{-6} $cm^3/cm^2/sec$. and establishes criteria for siting, investigation, and design of liquid waste storage facilities (NRCS, CA 2007). The criteria assigns risk and vulnerability ratings (very high, high, moderate, and slight) for groundwater contamination based on soil characteristics, highest anticipated groundwater elevation, distance from public or domestic drinking water supply wells (and whether the well is pumping from a confined or unconfined aquifer), and whether or not the site is located in a recharge area for a sole source aquifer. CPS 313 recommends siting and construction solutions ranging from "liner not required" for sites with low risk and low vulnerability to "evaluate other storage alternatives" for sites with very high risk and all vulnerability ratings (low to very high).

Ten of the existing Enrollees' sites were evaluated relative to the CPS 313 siting criteria using soil survey data available from NRCS and other information in the Regional Water Board's permit files. The 10 facilities were selected to represent the geographic distribution of CAFOs throughout the Imperial Valley. The eastern- and western-most facilities were included in the evaluation as those facilities are closest to the known groundwater recharge areas in the valley. All of the sites

evaluated were rated slight risk (the lowest possible risk rating) and moderate vulnerability for groundwater impacts from liquid waste storage facilities. The vulnerability rating is based on an assumption that the underlying confined aquifer is 46 feet below ground surface (the highest elevation indicated by available data). The vulnerability rating drops to low if the groundwater is 50 feet below ground surface. For sites rated slight risk, low vulnerability, CPS 313 indicates that a waste storage facility may be constructed with no liner. For sites rated slight risk, moderate vulnerability, the standard indicates further evaluation of the need for a liner. However, the proposed Order includes liner requirements for retention ponds based on Title 27. All excavated manure impoundments at CAFOs enrolled under the existing Order R7-2008-0800 are lined with the natural soil of the valley (alluvial fan composed mainly of clay).

The soil reports for the primary and secondary soils underlying the same ten CAFOs were reviewed for suitability for construction of sewage lagoons. According to the NRCS soil reports, the Imperial-Glenbar silty clay loams, wet and Imperial silty clay, wet soils have no limitations for sewage lagoons. These soil map units have slow permeability, adequate depth to the water table, and are considered low risk for seepage of lagoon pollutants into the water table. These soils comprise the primary and secondary soil types underlying 5 of the 10 facilities evaluated and the primary soil types underlying 3 additional facilities. Holtville silty clay, wet and Indio-Vint complex are the primary soil types underlying the 2 remaining CAFOs evaluated. These and Meloland find sand are also the secondary soil type at 3 of the CAFOs. These three soils have limited suitability for sewage lagoons. NRCS identifies permeability rates greater than 2 inches per hour as the limiting factor for sewage lagoons. However, in each case the soil map units are co-located with Imperial-Glenbar silty clay loams, wet and Imperial silty clay, wet soils and NRCS also classifies these soils as unsuitable for activities involving rapid infiltration. In addition, existing Imperial Valley CAFO wastewater storage areas have been in use for many years. Research has shown that manure will seal the soil of an earthen-lined lagoon, achieving a seepage rate equivalent to 1×10^{-6} cm/sec or lower, in as few as 30 days, with sealing occurring more rapidly in clay soils such as those found in the central Imperial Valley.[3] The Regional Water Board, therefore, believes that the wastewater storage structures currently in use at the existing Imperial Valley CAFOs are sealed with manure, located in suitable soils, or both.

For land application areas, the proposed Order requires use of the California Nitrate Leaching Index to evaluate and, where necessary, mitigate the risk of nitrate movement below the root zone.

High TDS concentrations in the groundwater underlying the Imperial Valley are relatively well documented, making the groundwater unsuitable for domestic uses

[3] For example:
Roswell, J.G. M.H. Miller, and P.H. Groenevelt. 1985. *Self-Sealing of Earthen Liquid Manure Storage Ponds: II. Rate and Mechanism of Sealing*. J. Environ. Qual. 14:539-543.
Cihan, A. J.S. Tyner, and W.C. Wright. 2006. *Seal Formation Beneath Animal Waste Holding Ponds*. Trans. ASABE 49(5):1539-1544.

without treatment. Comprehensive data on groundwater nitrogen and pathogen concentrations are not available. Limited data have shown low levels of nitrate in the underlying aquifer, suggesting that the aquifer is not significantly impacted by leaching of livestock waste.

Based on the regional geology, likely depth to groundwater, and characteristics of the soils underlying CAFOs in the region in combination with the liner requirements and required nitrate leaching risk assessment of the proposed Order, the Regional Water Board finds that the CAFOs enrolled under the proposed Order will not discharge to the groundwater aquifers underlying the Imperial Valley.

Based on the foregoing, the discharge, as permitted herein, is consistent with Resolution No. 68-16.

6. **Anti-Backsliding Requirements.** Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at title 40, Code of Federal Regulations section 122.44(l) restrict backsliding in NPDES permits. These anti-backsliding provisions require that effluent limitations in a reissued permit must be as stringent as those in the previous permit, with some exceptions in which limitations may be relaxed.

   The proposed Order establishes effluent limits, prohibitions, and permit conditions for discharging CAFOs to protect surface and ground water resources. The existing Order R7-2008-0800 required permit coverage for all CAFOs, consistent with the NPDES regulations that were in place when that Order was adopted. As clarified by the 2008 and 2012 revisions to the federal CAFO regulations, CAFOs that do not discharge to waters of the United States are not required to be covered under NPDES permits. The non-NPDES provisions of the proposed Order comprise primarily Title 27 requirements for confined animal facilities and requirements for CAFOs with on-site composting operations. The Title 27 requirements not implemented solely through permits will continue to apply to confined animal facilities in the region. CAFOs with on-site composting operations that are not covered under the proposed Order will be required to apply for coverage under a permit that authorizes discharges from on-site composting operations.

   Other non-NPDES provisions of the proposed Order include Receiving Water Limitations, which do not apply to non-discharging facilities, and EWMP requirements. The function of an EWMP is primarily to ensure that the waste handling and containment systems at the CAFO are properly designed and constructed to ensure the facility will meet the permit effluent limitations. The existing Enrollees have developed and implemented EWMPs. Existing, non-discharging, CAFOs that elect to discontinue permit coverage will still maintain system components that meet the design and construction requirements of the EWMP.

D. Impaired Water Bodies on CWA 303(d) List

The 2010 USEPA CWA Section 303(d) list of impaired waters (hereinafter 303(d) List) classifies the Imperial Valley Drains as impaired by chlordane, dieldrin,

Dichlorodiphenyltrichloroethane (DDT), endosulfan, Polychlorinated biphenyls (PCBs), toxaphene, and selenium. Further, sedimentation/silt had previously been listed as a pollutant impairing Imperial Valley Drains; a sedimentation/siltation Total Maximum Daily Load (TMDL) for the Imperial Valley Drains has been approved by USEPA. The sedimentation/siltation TMDL does not establish a WLA for discharges from CAFOs, however, it requires point sources not to exceed total suspended solids limit specified under 40 CFR 122. The permit is in compliance with the requirements of 40 CFR 122.23. Monitoring for TSS is required during each discharge event. The proposed Order includes effluent monitoring requirements for TSS. Imperial Valley Drains discharge to two (2) major waterbodies, the New River and the Alamo River.

The 2010 USEPA CWA Section 303(d) list of impaired waters (hereinafter 303(d) List) identifies the New River as impaired by the following chemical constituents: chlordane, chlorpyrifos, copper, dichlorodiphenyltrichloroethane (DDT), diazinon, dieldrin, hexachlorobenzene, mercury, nutrients, organic enrichment/low dissolved oxygen, polychlorinated biphenyls (PCBs), pathogens, sediment, selenium, toxaphene, toxicity, trash, and zinc. The New River Dissolved Oxygen TMDL was adopted by the Regional Board in May 2010, and was approved by USEPA on April 27, 2012. CAFOs were considered in the staff report and there no WLA for CAFOs. The New River is also listed as impaired for bacteria and sediment / siltation. USEPA has approved the Regional Water Board's TMDLs for these parameters; it requires point sources not to exceed total suspended solids limit specified under 40 CFR 122. The permit is in compliance with the requirements of 40 CFR 122.23. The bacteria TMDL establishes waste load allocations (WLAs) for fecal coliform, E. coli, and enterococci that apply to all NPDES-permitted facilities, including CAFOs, in the watershed. The established effluent limitations and BMPs in the proposed Order comply with the WLAs established in the New River TMDL. The staff report for the New River Pathogens requires the CAFOSs to maintain compliance with the existing Board Order R7-2008-0800 and for continuing monitoring and surveillance by Regional Water Board staff. The permit is in compliance with this requirement. A Trash TMDL for the New River has been approved by the Regional Water Board and State Water Board, the Office of Administrative Law, and USEPA. The TMDL essentially establishes a prohibition on the discharge of any trash to the New River by point sources. The proposed Order prohibits discharges of trash to the New River.

The 303(d) List identifies the Alamo River as impaired by the following chemical constituents: chlorpyrifos, DDT, dieldrin, PCBs, selenium, and toxaphene. The Alamo River Sedimentation/Siltation TMDL was adopted by the Regional Board on June 27, 2001. The TMDL was approved by the State Board on February 19, 2002; by the Office of Administrative Law (OAL) on May 3, 2002; and by USEPA on June 28, 2002. The Alamo River Sedimentation/Siltation TMDL does not establish waste load allocations for CAFOs, it requires point sources not to exceed total suspended solids limit specified under 40 CFR 122. . The permit is in compliance with the requirements of 40 CFR 122.23.

The 2010 USEPA CWA Section 303(d) List classifies segments of the Coachella Valley Storm Water Channel as impaired by DDT (Dichlorodiphenyltrichloroethane), dieldrin, PCBs (Polychlorinated biphenyls), pathogens and toxaphene. A TMDL has not yet been developed for DDT, dieldrin, PCBs, and toxaphene.

On May 20, 2010, the Regional Water Board adopted Resolution No. R7-2010-0027 amending the Basin Plan to revise water quality objectives for bacteria for a 17-mile reach of the Coachella Valley Storm Water Channel by removing two of the three bacterial indicators of enterococci and fecal coliform, and leaving Escherichia coli (*E. coli*) as the sole indicator of pathogen impairment. On December 6, 2011, the State Water Board adopted Resolution No. 2011-0060, approving the Basin Plan Amendment. The Basin Plan Amendment will be submitted concurrently to the Office of Administrative Law (OAL) and USEPA for their respective approvals. USEPA approval is required because the amendment proposes a change in water quality criteria necessary to protect the designated beneficial use of REC-1.

During a similar time frame, the Regional Water Board also developed a TMDL for bacterial indicators for the Coachella Valley Storm Water Channel by adopting Resolution No. 2007-0039 on May 16, 2007, and adopting Resolution No. 2010-0028 on June 17, 2010, which revised the TMDL. The TMDL sets numeric targets for E. coli and establishes a two-phase implementation plan. The TMDL Basin Plan Amendment was approved by the State Water Board on July 19, 2011, pursuant to Resolution No. 2011-0030, and by OAL on February 2, 2012.

Finally, the Salton Sea is listed as impaired by: (1) nutrients, (2) salt, and (3) metals (selenium). No TMDLs have been developed to date for the Salton Sea, although a nutrient TMDL is under development. Tributaries to the Salton Sea, including the New River, the Alamo River, and Coachella Valley Storm Channel, may be affected by the nutrient TMDL and any others developed for the Salton Sea. Furthermore, the Basin Plan establishes selenium objectives for tributaries to the Salton Sea.

IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source dischargers to control the amount of conventional, non-conventional, and toxic pollutants that are discharged into the waters of the United States. The control of pollutants discharged is established through effluent limitations and other requirements in NPDES permits. There are two principal bases for effluent limitations in the Code of Federal Regulations: 40 C.F.R. § 122.44(a) requires that permits include applicable technology-based limitations and standards; and 40 C.F.R. § 122.44(d) requires that permits include water quality-based effluent limitations to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water.

Wastes from CAFOs contain high concentrations of salts (total dissolved solids and nitrates) and nutrients, and may contain pathogens, heavy metals and other pollutants. These wastes originate from the excretion of manure in corrals, milk barns and other areas where animals are concentrated.

Farming practices on lands that receive CAFO waste contribute salts, nutrients, pesticides, trace elements, sediments and other by-products that can affect the quality of surface water and groundwater. Evaporation and crop transpiration remove water from soils, which can result in an accumulation of salts in the root zone of the soils at levels that retard or inhibit plant growth. Additional amounts of water often are applied to leach the salts below the root zones. The leached salts can reach groundwater or surface water.

Virtually all agricultural areas in the Imperial Valley have subsurface (tile) drainage systems to maintain the groundwater level below the crop's root zone. Lands with heavier soils, such as those present in the central Imperial Valley, have a more extensive network of tile lines than lands with more sandy soils to help leach salts from the soils because applied irrigation water does not readily percolate through the soil profile. Drainage from these systems may be discharged directly to surface water bodies or to drainage ditches that discharge to surface water bodies. Some of these systems discharge to evaporation basins that are subject to waste discharge requirements. Discharges from these systems have elevated concentrations of salts, including nitrates and other nutrients. The proposed Order requires Dischargers who have these systems to identify their location and discharge point and to monitor discharges from these systems.

To ensure that wastes and associated pollutants from CAFOs are managed appropriately, it is vital to make sure that discharges of these wastes and application of manure and process wastewater to land at CAFOs are regulated so they will not adversely impact the quality of groundwater and surface water in the Region. When the requirements specified in the proposed Order are met, water quality of the Region is not expected to degrade as a result of discharges authorized under the proposed Order.

The proposed Order prohibits the discharge of pollutants from production areas except where precipitation causes a discharge from a facility designed, constructed, operated, and maintained to contain all manure and process wastewater and the runoff and direct precipitation from a 25-year, 24-hour storm event for new and existing CAFOs that confine dairy cows and cattle other than veal calves (40 C.F.R. § 412.31), for existing CAFOs that confine swine, poultry and veal calves (40 C.F.R. § 412.43), and for horse, sheep, and duck CAFOs established after February 14, 1974 (40 C.F.R. §§ 412.13 and 412.25). For new swine, poultry, and veal calf CAFOs, the proposed Order prohibits the discharge of pollutants from production areas and establishes a process for Dischargers to meet the no-discharge requirement with site-specific best management practice effluent limitations based on a demonstration following procedures specified in the proposed Order, that production areas are designed to achieve zero discharge (40 C.F.R. § 412.46). The existing Order R7-2008-0800 established a 100-year, 24-hour storm design standard for new swine, poultry, and veal calf CAFOs, consistent with the 2003 federal ELGs that were current when that Order was adopted. The "no discharge" standard for new swine, poultry, and veal calf CAFOs in the proposed Order is consistent with the 2008 revisions to the federal ELG. To comply with these effluent limitations, the Discharger must also comply with additional measures including production area visual inspections, installation of a depth marker in all open surface liquid impoundments, and correcting any deficiencies found as a result of the visual inspections in addition to keeping specific records for the production area (40 C.F.R. § 412.37(a) and (b)). (Note that the Additional Measures specified at 40 C.F.R. § 412.37 also include requirements for properly handling mortalities. These requirements are included in the proposed Order as a Prohibition rather than an

effluent limitation.) Further, the proposed Order requires that the facilities meet certain liner requirements for retention ponds and be protected from inundation from a 100-year frequency storm (Title 27, California Code of Regulations).

To ensure compliance with the effluent limitations in the proposed Order, and consistent with the existing Order R7-20008-0800, each Discharger has been required to develop and implement an Engineered Waste Management Plan (EWMP). The requirements of the EWMP are included in Attachment B of the proposed Order. Most of the facilities that are authorized to discharge under Order R7-2008-0800 have already submitted EWMPs to the Regional Water Board. All of those EWMPs have been approved; however, some of them are not current. New dischargers under the proposed Order and dischargers that have not submitted a current EWMP will be required to submit an EWMP at least 30 days prior to any new discharge.

Consistent with Order R7-2008-0800, the proposed Order requires the EWMP to be prepared by a registered professional engineer or other qualified individual. The Regional Water Board is aware of software programs such as NRCS's Animal Waste Management (AWM) program that can be used to determine the necessary size of manure and wastewater storage facilities. Such programs may be used in the development of EWMPs as long as the resulting plan is consistent with the EWMP requirements in Attachment B of the Order. Furthermore, the Regional Water Board is aware that such programs are designed so that they may be used by CAFO operators to design storage facilities. CAFO operators may use AWM or similar software to assist in the development of an EWMP; however, a registered professional engineer or other qualified individual must certify that the resulting EWMP meets the requirements in Attachment B of the proposed Order. Other qualified individuals may include University of California Extension specialists or employees of NRCS, subject to the approval of the Regional Water Board.

The proposed Order also prohibits discharges from land application areas under the control of the CAFO, except agricultural stormwater discharges. Precipitation-caused discharges from a land application area where the manure, litter, or process wastewater has been applied in accordance with the provisions in the Discharger's NMP are considered to be agricultural stormwater discharges (40 C.F.R. § 122.23(e)). Each Discharger that applies manure, litter, or process wastewater to land under the CAFO's control must develop and implement a NMP that includes specific elements specified at 40 C.F.R. §§ 122.42(e)(1)(vi) – (ix) (section VII.C.3.b of the proposed Order) and 412.4(c) (section V.C.2 of the proposed Order). 40 C.F.R. § 122.42(e)(1) also includes requirements not directly related to land application of manure, litter, or process wastewater as minimum elements of a CAFO's NMP. Because most of the CAFOs in the Region do not land apply manure, litter, or process wastewater, the proposed Order includes the requirements from 40 C.F.R. §§ 122.42(e)(1)(i) – (v) as stand-alone provisions so that only those CAFOs that do land apply manure, litter, or process wastewater are required to prepare NMPs. With respect to the regulatory NMP requirements contained in 40 C.F.R. §§ 122.42(e)(1)(i) – (v), the records maintained by the Discharger to document compliance with those requirements are considered to be part of the CAFO's NMP. Those records are specified in section X.C.1.

Existing Enrollees under Order R7-2008-0800 that apply manure, litter, or process wastewater to land under their control have submitted NMPs to the Regional Water Board. All of those NMPs have been approved; however, the existing NMPs must be revised to

reflect the updated permit provisions that detail the factors, projections, and other data that must be included in the NMP. Existing and new dischargers will be required to submit an NMP with their NOI. New dischargers are required to submit the NMP and NOI at least 90 days before the start of permit coverage. Existing dischargers are required to submit the NMP and NOI by September 30, 2014 but are encouraged to submit them as soon as possible. The Regional Water Board anticipates that the NMP review and approval process could take up to 90 days from the time the NMP is submitted. Since manure, litter, and process wastewater may not be applied unless in accordance with the terms of an approved NMP, dischargers who anticipate applying manure, litter, or process wastewater after September 30, 2014 will need to submit NOIs and NMPs and obtain approval before the permit effective date.

Dischargers are not required to use certified planners to prepare NMPs, but the Regional Water Board does encourage Dischargers to work with experts such as USDA's NRCS and Cooperative Extension who can help make sure that NMPs meet all regulatory requirements and promote sustainable agriculture.

The Technical Standards for Nutrient Management as specified in the proposed Order are based on technical standards established in WDRs for similar facilities in the state, on guidelines in NRCS Conservation Practices Standard Code 590 (Nutrient Management), and on recommendations from the University of California Cooperative Extension. The technical standards are consistent with the USEPA best practicable control technology and the best management practices required by 40 C.F.R. §§ 122.42(e)(1)(vi)-(ix) and the large CAFO best practicable control technology. In 2011, the USEPA reviewed the existing Technical Standards for Nutrient Management included with Order R7-2008-0800 (Attachment C). Revisions to the technical standards in the proposed order address USEPA's recommendations resulting from that review, clarify certain provisions, and improve groundwater protection relative to land application of manure at CAFOs. Specifically, the following revisions have been made to the Technical Standards for Nutrient Management (Attachment C) included with the proposed order: clarified expectations for analytical methods used in manure and soil testing, clarified expectations for documentation of procedures not specifically identified in the technical standards, identified a specific source for legume nitrogen credits, added specific mineralization rates to be used in calculating manure application rates and soil nitrogen credits, specified a method for calculating realistic yield goals based on historic crop yields, required use of the California Nitrogen Index to assess the risk of nitrogen leaching from land application sites, clarified requirement for use of California Phosphorus Index to assess all land application sites regardless of the existence of a known phosphorus impairment, clarified limitations on use of multi-year phosphorus application. Therefore, precipitation-related discharges from land application areas at facilities operating in compliance with the proposed Order are agricultural storm water discharges. And since they are consistent with USEPA best practicable control technology, the Technical Standards for Nutrient Management represent best practicable treatment or control for the purposes of State Water Resources Control Board Resolution No. 68-16.

A number of the CAFOs within the Region compost, or have expressed interested in composting, manure generated at the CAFO. The Regional Water Board routinely issues individual Waste Discharge Requirements (WDRs) to composting operations or allows the Imperial County to regulate under its authority. Consistent with the existing Order R7-2008-

0800, the proposed Order includes requirements that apply to CAFOs with on-site composting operations to relieve those facilities of the need to maintain separate permits for the composting activities. Dischargers that choose to maintain separate WDRs or Imperial County permits for on-site composting operations are not subject to the requirements of the proposed Order that apply to on-site composting operations. The requirements for on-site composting operations are consistent with the surface water protection provisions of individual WDRs issued to composting operations in the Region and with the requirements of Title 14, Chapter 3.1 of the California Code of Regulations.

The proposed Order requires the implementation of a manure tracking manifest system by all CAFOs authorized to discharger under the Order. CAFO manure contains much more salt per unit of nitrogen than other kind of fertilizers. For this reason, the use of manure to meet the nutrient needs of crops results in excessive application of salts which are not utilized by plants and which can migrate to groundwater or be discharged to surface water via tile drainage systems. The manure tracking manifest system data may be used if necessary to identify croplands where manure is routinely applied at rates that exceed crop needs. Consistent with individual WDRs issued to composting facilities, the proposed Order also requires CAFOs with on-site composting operations not covered by separate WDRs to maintain trucking manifests documenting the amounts, dates, and sources or destinations of all incoming and outgoing material.

The following table clarifies the manifest requirements for Dischargers with on-site composting operations covered under the proposed Order.

Description	**Manifest Requirements of this Order**
Third party composts manure on-site and compost is transferred off-site. Third party composting operation is covered under separate WDRs or County permit	Discharger maintains manifest of manure transferred to on-site, third party composter.
Third party composts all manure on-site and all compost is spread on land under the control of the Discharger, **or** Discharger composts manure on-site and then applies compost to land under the control of the Discharger (no manure or compost is transferred off site).	No manifest requirements.
Discharger composts manure on site and transfers compost to third party (off-site), or Third party composts manure on-site and compost is transferred off site. Composting operation is covered under this Order.	Discharger maintains manifest of compost transferred off site

The groundwater salinity within Imperial Valley is naturally high. For that reason the application of manure is not expected to impact the quality of the groundwater. However, a study is highly recommended to determine the acceptable salt loading rate in this area. A Salt and Nutrient Management plan for the Imperial Valley is being conducted as part of the Integrated Regional Water Management Plan.

Livestock operations, particularly dairies, are known to be a major contributor of groundwater contamination in other areas of the state, namely the Chino Basin and the

Central Valley. Although the soil types and geology of the Imperial Valley differ from those areas such that groundwater is not expected to be impacted by CAFO wastes, the proposed Order does provide for case-by-case evaluation of the need for groundwater monitoring at individual CAFOs. Upon the submittal of the EWMP, the Executive Officer will determine the need to prepare a groundwater monitoring program. The determination will be based on factors that affect the risk of wastewater leaching to groundwater. The factors to be considered include, but are not limited to:

- Permeability of underlying soils
- Distance to wells
- Depth of seasonal high groundwater levels
- Presence of fractured bedrock or other preferential flow pathways to groundwater
- Evidence of over-application of nitrogen to land application sites
- Conformance with the soil and siting requirements for the EWMP and adequacy of the proposed measures to ensure the structures meet the criteria (see Attachment B, item 3).

This is a best professional judgment (BPJ)-based requirement for protection of groundwater. No CAFOs have been required to monitor groundwater under Order R7-2008-0800.

The proposed Order also includes the requirement that confined animal facilities comply with the Basin Plan and Title 27 of the California Code of Regulations. Furthermore, the proposed Order requires a minimum separation of five (5) feet between the bottom of wastewater storage structures and seasonally high groundwater levels. This is consistent with the existing Order R7-2008-0800 as well as SWRCB's 1980 *Guidelines for Mound Systems* and California NRCS's 2007 Conservation Practice Standard Code 313 (Waste Storage Facility) criteria for minimizing seepage to groundwater.

In conclusion, the overall CAFO management strategy includes permitting, manure disposal tracking, groundwater monitoring (where appropriate), storm water management, and enforcement.

While developing effluent and receiving water limitations, monitoring requirements and special conditions for the proposed Order, the following information sources were used:

1. Code of Federal Regulations – Title 40.
2. Water Quality Control Plan (Colorado River Basin – Region 7) as amended to date.
3. Order 01-800.
4. Central Valley Regional Water Quality Control Board's Waste Discharge Requirements for Existing Milk Cow Dairies (Order R5-2007-0035).
5. Santa Ana Regional Water Quality Control Board's General Waste Discharge Requirements for Concentrated Animal Feeding Operations (Dairies and Regulated Facilities) Within the Santa Ana Region (Order R8-2007-0001).

Effluent and receiving water limitations in the proposed Order are based on the federal CWA, Basin Plan, State Water Board's plans and policies, USEPA guidance and regulations, and best practicable waste treatment technology. While developing effluent limitations and receiving water limitations, monitoring requirements, and special conditions for the draft permit, the following information sources were used:

1. Code of Federal Regulations – Title 40.
2. Water Quality Control Plan (Colorado River Basin – Region 7) as amended to date.
3. Division 2, title 27, chapter 7, subchapter 2, article 1 of the Combined State Water Board/California Integrated Waste Management Board AB 1220 Regulations, which became effective on July 18, 1997.
4. Order R7-2008-0800.
5. Regional Water Board files related to General NPDES Permit for CAFOs within the Colorado River Basin Region, NPDES permit CAG017001.
6. Central Valley Regional Water Quality Control Board's General Waste Discharge Requirements and NPDES Permit for Existing Milk Cow Dairies (Order R5-2010-0118).
7. Santa Ana Regional Water Quality Control Board's General Waste Discharge Requirements for Concentrated Animal Feeding Operations (Dairies and Regulated Facilities) Within the Santa Ana Region (Order R8-2007-0001).
8. North Coast Regional Water Quality Control Board's General Waste Discharge Requirements and NPDES Permit for Concentrated Animal Feeding Operations Within the North Coast Region (Order R1-2012-0001).
9. *Asociacion De Gente Unida Por El Agua et al. v. Central Valley Regional Water Quality Control Board* (2012) 210 Cal.App.4th 1255 [149 Cal.Rptr.3d 132].
10. USDA NRCS Conservation Practice Standard Code 590 (Nutrient Management)
11. USDA NRCS Conservation Practice Standard Code 313 (Waste Storage Facility)

A. Discharge Prohibitions

Effluent and receiving water limitations in the proposed Order are based on the Federal CWA, Basin Plan, State Water Board's plans and policies, USEPA guidance and regulations, and best practicable waste treatment technology.

Order R7-2013-0800 prohibits any discharge of wastes causing degradation of any water supply. The proposed Order also prohibits the discharge of wastes except as provided for in the effluent limitations and discharge specifications of the proposed Order. The proposed Order also prohibits pollution caused by certain activities associated with composting operations as well as the use of certain materials in composting operations, consistent with individual WDRs issued by the Regional Water Board to composting facilities in the region. Finally, the proposed Order prohibits the discharge of trash to the New River, consistent with applicable TMDL waste load allocations.

B. Technology-Based Effluent Limitations

1. Scope and Authority

Section 301(b) of the CWA and implementing USEPA permit regulations at section 122.44, title 40 of the Code of Federal Regulations, require that permits include conditions meeting applicable technology-based requirements at a minimum, and any more stringent effluent limitations necessary to meet applicable water quality standards. The discharge authorized by the proposed Order must meet minimum federal technology-based requirements based on ELGs for Concentrated Animal Feeding Operations in 40 C.F.R. part 412 and BPJ in accordance with 40 C.F.R. § 125.3.

The CWA requires that technology-based effluent limitations are established based on several levels of controls:

- Best practicable treatment control technology (BPT) represents the average of the best performance by plants within an industrial category or subcategory. BPT standards apply to toxic, conventional, and non-conventional pollutants.

- Best available technology economically achievable (BAT) represents the best existing performance of treatment technologies that are economically achievable within an industrial point source category. BAT standards apply to toxic and non-conventional pollutants.

- Best conventional pollutant control technology (BCT) represents the control from existing industrial point sources of conventional pollutants including BOD, TSS, fecal coliform, pH, and oil and grease. The BCT standard is established after considering the “cost reasonableness” of the relationship between the cost of attaining a reduction in effluent discharge and the benefits that would result, and also the cost effectiveness of additional industrial treatment beyond BPT.

- New source performance standards (NSPS) represent the best available demonstrated control technology standards. The intent of NSPS guidelines is to set limitations that represent state-of-the-art treatment technology for new sources.

The CWA requires USEPA to develop effluent limitations, guidelines and standards (ELGs) representing application of BPT, BAT, BCT, and NSPS. Section 402(a)(1) of the CWA and section 125.3 of the Code of Federal Regulations authorize the use of BPJ to derive technology-based effluent limitations on a case-by-case basis where ELGs are not available for certain industrial categories and/or pollutants of concern. Where BPJ is used, the permit writer must consider specific factors outlined in 40 C.F.R. § 125.3.

2. Applicable Technology-Based Effluent Limitations

The provisions of the proposed Order establish production area design standards and operational procedures and require the development and implementation of EWMPs and NMPs to control and abate the discharge of pollutants to surface waters and to achieve compliance with applicable water quality standards utilizing BPT requirements established in the ELGs at 40 C.F.R. part 412. These ELGs apply to Large CAFOs. Given the similarity in the operational characteristics of CAFOs, the Regional Water Board finds that it is appropriate to develop BPJ-based effluent limitations for Medium CAFOs and AFOs that have been designated as CAFOs that are the same as the effluent limitations established in the ELG for Large CAFOs.

The effluent limitations for most CAFOs that will be authorized to discharge under the proposed Order require that the Discharger's production area be designed, constructed, operated, and maintained to contain all process wastewater plus the direct precipitation and runoff from a 25-year, 24-hour storm event. New swine, poultry, and veal calf CAFOs are subject to a zero discharge standard. Site-specific design standards may be developed for those facilities based, in part, on the performance of a facility's proposed storage structure design using 100 years of climate data. Requirements for on-site composting operations require storage capacity for a 100-year, 24-hour storm. Some CAFOs in the Region have inquired whether containment berms around the entire facility or entire composting area would be an acceptable alternative to constructing containment ponds or impoundments. Specific to composting operations, Title 14 composting regulations and existing WDRs for composting operations in the Region do not specifically address this situation. For CAFOs in general, existing CAFO requirements including federal regulations and Order R7-2008-0800 also do not provide clear guidance. The Regional Water Board has determined that berms around the entire facility or composting area would be approved as long as the area that would act as an impoundment meets all requirements of the EWMP, particularly with respect to storage capacity and the permeability of underlying soils.

C. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority

Section 301(b) of the CWA and 40 C.F.R. § 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards.

40 C.F.R. § 122.44(d)(1)(i) requires that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, water quality-based effluent limitations (WQBELs) must be established using: (1) USEPA criteria guidance under CWA section 304(a), supplemented where necessary by other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric water quality criterion, such as a

proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided in 40 C.F.R. § 122.44(d)(1)(vi).

The process for determining reasonable potential and calculating WQBELs when necessary is intended to protect the designated uses of the receiving water as specified in the Basin Plan, and achieve applicable water quality objectives and criteria that are contained in other state plans and policies, or any applicable water quality criteria contained in the CTR and NTR.

2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

The designated beneficial uses of surface waters throughout the Colorado River Basin Region include agricultural supply, aquaculture, cold freshwater habitat, freshwater replenishment, ground water recharge, hydropower generation, industrial service supply, municipal and domestic supply, non-contact water recreation, preservation of rare, threatened, or endangered species, warm freshwater habitat, water contact recreation, and wildlife habitat. The designated beneficial uses for ground waters throughout the Region include agricultural supply, industrial service supply, and municipal and domestic supply.

The primary pollutants of concern for CAFOs are nutrients (nitrogen and phosphorus), salt, sediment, and pathogens.

Chapter 3 of the Basin Plan contains water quality objectives for waters in the Region. The Basin Plan states that discharges of wastes or wastewater shall not increase the TDS content of receiving waters, unless it can be demonstrated the increase does not adversely affect beneficial uses of receiving waters. Additionally, excepting discharges from agricultural sources, the discharge shall not cause the concentration of TDS to exceed an annual average of 4,000 mg/L and a maximum of 4,500 mg/L in the New River, Alamo River, and Imperial Valley Drains, and an annual average of 2,000 mg/L and a maximum of 2,500 mg/L in Coachella Valley Drains. Waters that are designated as supporting the MUN beneficial use shall not contain nitrate (as nitrogen) in concentrations in excess of 10 mg/L.

The Basin Plan incorporates TMDLs that have been approved for the New River, Alamo River, and Coachella Valley Storm Water Channel. The following TMDLs are incorporated in the Basin Plan: New River Pathogen TMDL (addresses fecal coliform, E. coli, and enterococci), Alamo River Sedimentation/Siltation TMDL (addresses suspended solids), New River Sediment/Siltation TMDL, Imperial Valley Drains Sedimentation/Siltation TMDL, and the New River Trash TMDL.

3. Determining the Need for WQBELs

NPDES permits for discharges to waters of the United States must meet all applicable provisions of sections 301 and 402 of the CWA. These provisions require controls of pollutant discharges that utilize BAT and BCT to reduce pollutants and any more stringent controls necessary to meet water quality standards.

CAFOs may have multiple discharges from production areas and land application areas. Under the CWA, establishment of generally-applicable WQBELs for land application areas is not feasible because precipitation-related discharges from land application areas are either subject to the technology-based effluent limitations in the ELG or exempt under the CWA agricultural stormwater exemption. To define the scope of the NPDES CAFO regulations, 40 C.F.R. § 122.23(e) defines agricultural stormwater discharges exempt from NPDES regulation as precipitation-related discharges of manure, litter or process wastewater from land areas under the control of a CAFO where the manure, litter or process wastewater has been applied in accordance with site specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients in the manure, litter, or process wastewater, as specified in 40 C.F.R. §§ 122.42(e)(1)(vi)-(ix), which are the land application provisions of the NPDES NMP requirements. In other words, CAFOs must develop, prepare and implement NMPs in accordance with the NPDES regulations and technology-based effluent limitations applicable to land application areas. As long as the CAFO is in compliance with these requirements, any precipitation-related discharge from the land application area is exempt from regulation.

For production areas, establishment of generally-applicable numeric effluent limitations is not feasible because (1) the only discharges to surface waterbodies, or tributaries thereof, that are permitted are those from rainfall events that cause an overflow from facilities designed, constructed, operated and maintained to contain all process wastewater plus the runoff and direct precipitation (that have been commingled with manure or other products or by-products) from a 25-year, 24-hour rainfall event (or other design storm event used in sizing the impoundments at new source swine, poultry, and veal calf CAFOs for zero discharge), (2) due to the significant volume of runoff involved from such events treatment of these discharges to meet numeric effluent limitations would be impractical, and (3) if the requirements specified in the proposed Order are met, water quality of the Region is not expected to degrade as a result of discharges authorized under the proposed Order.

Therefore, the effluent limitations contained in the proposed Order are narrative and include the requirement to develop and implement an EWMP and NMP and implement additional measures specified in section VII.C, which is equivalent to Best Management Practices (BMPs). 40 C.F.R. § 122.44 (k)(3) allows the use of BMPs to control and abate the discharge of pollutants when “numeric effluent limitations are infeasible; or . . . the practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA.” It is not feasible to establish generally-applicable, numeric WQBELs for pollutants in discharges from CAFOs; therefore, in lieu of WQBELs, the proposed Order requires Dischargers to develop and implement an EWMP and NMP and implement certain additional measures for the production and land application areas.

A WQBEL is designed to protect the quality of the receiving water by ensuring that Basin Plan water quality objectives are met. Federal regulations at section 122.44(d) require permit effluent limitations to control all pollutants that may be discharged at a level that will cause, have the reasonable potential to cause, or contribute to an excursion above any water quality standard. If the Regional Water Board determines that additional requirements (e.g., additional effluent limitations, monitoring

requirements, etc.) are necessary for a specific Discharger to comply with applicable water quality standards or waste load allocations established in an approved TMDL, those requirements will be specified in either the written notice of authorization or a subsequent letter from the Regional Water Board to the Discharger. Such additional requirements may be necessary, for example, to protect water quality in surface waters that have been placed on the state's 303(d) list of impaired waters. An additional public notice will not be required to impose those requirements.

The technology-based requirements in the proposed Order limit production area discharges to those that occur as the result of a very large storm event (i.e., a 25-year, 24-hour storm for all existing Enrollees) at a facility that is otherwise designed, constructed, operated, and maintained as required. Allowable production area discharges are very infrequent, and have not occurred during the term of the existing Order No. R7-2008-0800. The majority of the existing enrollees (30 of 31) dispose of wastewater through evaporation. That, combined with the fact that none of these facilities has reported a discharge, suggests that wastewater at those operations has a long residence time in lagoons exposed to high ambient temperatures and sunlight. These conditions, particularly where wastewater impoundments are mechanically aerated, generally do not support long-term bacterial survival. The Order also requires that retention ponds and manured areas be protected from inundation or washout by flooding that results from 20-year or 100-year peak streamflows. This requirement exceeds applicable BPT/BAT and provides additional protection against production area discharges. In addition, when an allowable production area discharge occurs, the discharge would be commingled with other sources, which lessens the potential impact on receiving waters.

For land application areas, dischargers are required to incorporate manure. Incorporating manure into the soil decreases the potential for bacteria and other pollutants to be exposed to precipitation and transported from the field in runoff. Where incorporation of manure is not feasible, the proposed Order requires containment of runoff. In addition, the proposed Order prohibits application of wastewater to saturated soils and runoff from land application sites from the first irrigation after manure application and before planting. These land application BMP requirements exceed BPT/BAT and are expected to minimize discharges of pathogens to all surface receiving waters, including the New River.

Finally, the proposed Order requires Enrollees to monitor production and land application area discharges for total and fecal coliform. The Executive Officer of the Regional Water Board or the Regional Administrator of the USEPA may require any person authorized by this Order to apply for and obtain individual waste discharge requirements if the discharge may adversely affect the water quality objectives of the receiving water (e.g., if effluent monitoring data indicate that discharges to the New River contain bacteria at levels that are not in accordance with the TMDL WLAs).

These technology-based requirements combined with BMPs are more stringent than water quality-based effluent limits for this discharge.

D. Final Effluent Limitations

1. Satisfaction of Anti-Backsliding Requirements

Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at Title 40, C.F.R. § 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require that effluent limitations in a reissued permit must be as stringent as those in the previous permit, with some exceptions in which limitations may be relaxed. As discussed in detail in Fact Sheet section IV, all effluent limitations in the proposed Order are at least as stringent as the effluent limitations in Order R7-2008-0800. Only CAFOs that discharge to waters of the U.S. are required to apply for coverage under the proposed Order. All CAFOs in the region were required to apply for coverage under Order R7-2008-0800. The facilities that will discontinue permit coverage, because they do not discharge, will not contribute pollutants to waters of the United States. In addition, the requirements of the proposed Order that are based on Title 27 and those that cover discharges from on-site composting operations will still apply to those facilities. Finally, all CAFOs were previously covered under the Order and therefore were required to design and construct their facilities in accordance with EWMP requirements; those facilities that discontinue permit coverage will nonetheless continue to be designed and constructed as required by the proposed Order. As a result, the proposed Order is in compliance with the anti-backsliding requirement.

2. Satisfaction of Antidegradation Policy

40 C.F.R. § 131.12 requires that the state water quality standards include an anti-degradation policy consistent with the federal policy. The State Water Board established California's anti-degradation policy in State Water Board Resolution No. 68-16. Resolution No. 68-16 incorporates the federal anti-degradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the State and federal anti-degradation policies. As discussed in detail in Fact Sheet section III.C.5, the permitted discharge is consistent with the anti-degradation provision of 40 C.F.R. §n 131.12 and State Water Board Resolution No. 68-16.

The Regional Water Board has considered antidegradation pursuant to 40 C.F.R. § 131.12 and State Water Board Resolution No. 68-16 and finds that:

a. Appropriate technology- and water quality-based effluent limitations, including waste containment design standards, operation and maintenance requirements, visual monitoring, and other BMPs and conditions established in the proposed Order, will ensure that allowable discharges from CAFO production areas will be infrequent and will occur only during large storm events when the discharges are not likely to degrade surface receiving waters.
b. The NMP requirements, Technical Standards for Nutrient Management, and related land application limitations and conditions established in the proposed

Order will minimize transport of nutrients, pathogens, and other pollutants of concern to surface receiving waters. Agricultural storm water discharges from CAFO land application areas operated in compliance with the proposed Order are not expected to degrade surface receiving waters.

c. Low-permeability soils underlying the existing CAFOs in the region inhibit wastewater percolation to the confined aquifer, which is between 40 and 80 feet below ground surface.

d. The proposed Order establishes siting criteria which include: 1) a requirement that retention ponds be lined with or underlain by soil that contains at least ten percent clay and not more than ten percent gravel or artificial materials or materials with equivalent impermeability, and 2) minimum distance to seasonally high groundwater for wastewater containment structures. The existing impoundments at CAFOs in the region are constructed from native, low permeability soils. In addition, the existing impoundments have been in place for many years and are likely sealed with manure, which provides additional protection from wastewater seepage.

e. The proposed Order requires CAFOs with containment structures that do not meet the EWMP soil and siting criteria to propose measures to demonstrate that seepage rates from those containment structures will not exceed 1×10^{-6} cm/sec.

f. The proposed Order provides for case-by-case determination of the need to require site specific groundwater monitoring at CAFOs that pose a risk to groundwater resources based on their location, underlying geology, distance from seasonally high groundwater levels, proximity to wells or other conduits to groundwater, and other risk factors.

g. Extensive tile drainage of croplands in the region prevent percolation of land applied wastewater from CAFOs.

h. The proposed Order requires evaluation of all CAFO land application sites using the California Nitrate Leaching Index to identify and mitigate the risk of nitrate leaching from land application of manure.

i. Discharges regulated by this Order should not lower water quality if the terms and conditions of this Order are met.

Therefore, the proposed Order is in compliance with the state anti-degradation policy.

3. Endangered Species Act Requirements

The proposed Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code sections 2050 to 2097) or the Federal Endangered Species Act (16 U.S.C.A. sections 1531 to 1544). The proposed Order requires compliance with effluent limits, receiving water limits, and other requirements to protect the beneficial uses of waters of the state. The Discharger is responsible for meeting all requirements of the applicable Endangered Species Act.

E. Interim Effluent Limitations – Not Applicable

F. Land Discharge Specifications – Not Applicable

G. Reclamation Specifications – Not Applicable

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

The receiving water limitations in the proposed Order are based upon the water quality objectives contained in the Basin Plan. As such, they are a required part of the proposed Order.

A. Surface Water

The surface water receiving water limitations in the proposed Order are based upon the water quality objectives contained in the Basin Plan and replace the general surface receiving water limitations in the previous Order. Because they are based on the Basin Plan water quality objectives, they are a required part of the proposed Order. The receiving water limitations for dissolved oxygen and temperature are as follows:

The discharge shall not cause the concentration of dissolved oxygen in the receiving water to fall below 5.0 mg/L. When the dissolved oxygen in the receiving water is already below 5.0 mg/L, the discharge shall not cause any further depression.

The discharge shall not result in the natural receiving water temperature to be altered, unless it can be demonstrated to the satisfaction of the Regional Water Board that such alteration in temperature does not adversely affect beneficial uses.

The discharge shall not result in the normal ambient pH of the receiving water to fall below 6.0 or exceed 9.0 units.

Discharges to the New River, Alamo River, and Imperial Drains: The discharge shall not cause the concentration of total dissolved solids in the surface receiving water body to exceed an annual average concentration of 4,000 mg/L or a maximum daily concentration of 4,500 mg/L.

Discharges to the Coachella Valley Drains and Palo Verde Valley Drains: The discharge shall not cause the concentration of total dissolved solids in the surface receiving water body to exceed an annual average concentration of 2,000 mg/L or a maximum daily concentration of 2,500 mg/L.

B. Groundwater

The discharge shall not cause the underlying groundwater to be degraded, to exceed water quality objectives, unreasonably affect beneficial uses, or cause a condition of pollution or nuisance.

VI. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

40 C.F.R. § 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code sections 13267 and 13383 authorizes the Regional Water Board to require technical and monitoring reports. The Monitoring and Reporting Program (MRP), Attachment E of the proposed Order, establishes monitoring and reporting requirements to implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for facilities covered by the proposed Order.

A. Effluent Monitoring

The Discharger is required to conduct monitoring of the permitted discharges in order to evaluate compliance with permit conditions. Monitoring requirements are given in the proposed MRP. This provision requires compliance with the MRP, and is based on 40 C.F.R. §§ 122.44(i), 122.62, 122.63 and 124.5. The MRP is a standard requirement in almost all NPDES permits (including the proposed Order) issued by the Regional Water Board. The MRP specifies general sampling/analytical protocols and the requirements of reporting of spills, violations, and routine monitoring data in accordance with NPDES regulations, the CWC, and Regional Water Board's policies. The MRP also contains sampling program specific for the permitted discharges. It defines the sampling stations and frequency, pollutants to be monitored, and additional reporting requirements.

The Discharger must monitor all discharges or overflows from manure and/or wastewater storage structures, whether or not the discharge or overflow is authorized by the permit. The Discharger must monitor all discharges from land application sites under the CAFO's control where manure, litter, or process wastewater have been applied, except for agricultural stormwater discharges. The monitoring parameters required are consistent with the existing Order R7-2008-0800. The Discharger must analyze all discharges for the parameters specified in the permit in accordance with USEPA-approved methods at 40 C.F.R. part 136. Effluent monitoring requirements are largely unchanged from the existing Order.

B. Receiving Water Monitoring

The surface water monitoring requirements apply when CAFOs discharge effluent to surface waters. When there is a discharge from the CAFO, the Discharger must monitor the receiving water at a location upstream and downstream from the location the discharge from the CAFO enters the receiving water. The Discharger must collect and analyze samples once per discharge event for pH, temperature, nitrogen, phosphorus, dissolved oxygen, and total dissolved and suspended solids, and bacteria to determine compliance with receiving water limitations.

The ground water monitoring requirements are based on and consistent with the requirements contained in the existing Order R7-2008-0800. The requirements apply only to those Dischargers who have been required by the Executive Officer, upon review of the Discharger's EWMP, to prepare a ground water monitoring program. None of the existing CAFOs enrolled under Order R7-2008-0800 have been required to prepare a ground water monitoring program.

C. Other Monitoring Requirements

1. Production Area Visual Inspections Applicable to CAFOs that Confine Dairy Cows, Cattle, Swine, Poultry, and Veal Calves

The Discharger must conduct daily visual inspections of all water lines (including drinking and overflow water lines) and weekly visual inspections of stormwater diversion devices, runoff diversion structures, and devices channeling contaminated stormwater to wastewater storage and containment structures and all manure, litter, process wastewater impoundments pursuant to the effluent limitations established at 40 C.F.R. § 412.37(a).

2. Production Area Visual Inspections Applicable to All CAFOs

All Dischargers must conduct visual inspections and record keeping as described in the MRP to ensure any discharges from the facility are detected in a timely manner. These requirements are consistent with the monitoring requirements in the existing Order R7-2008-0800.

3. Manure, Litter, and Process Wastewater Monitoring – Applicable to CAFOs that Land Apply Manure, Litter, or Process Wastewater and to Large CAFOs that Transfer Manure, Litter or Process Wastewater to Other Persons

Dischargers that land apply manure, litter, or process wastewater must monitor manure, litter, and process wastewater for the constituents specified in the MRP, pursuant to requirements established at 40 C.F.R. §§ 122.42(e)(i)(vii) and 412.4(c)(3). Large CAFOs are expected to use the results of the required analyses to provide information on nutrient content to recipients of manure, litter, or process wastewater transferred to third parties pursuant to the requirements established at 40 C.F.R. § 122.42(e)(3). Dischargers that land apply manure, litter, or process wastewater are expected to use the results of the required analyses for nutrient management. The monitoring parameters required are consistent with those required under Order R7-2008-0800.

4. Soil Monitoring – Applicable to CAFOs that Land Apply Manure, Litter, or Process Wastewater

Dischargers that land apply manure, litter, or process wastewater shall monitor soils in the land application area(s) for the constituents specified in the MRP, pursuant to requirements established at 40 C.F.R. § 122.42(e)(i)(vii). Dischargers are expected to use the results of the required analyses for nutrient management. The monitoring parameters and frequency required are consistent with 40 C.F.R. § 412.4(c)(3).

5. Materials Monitoring – Applicable to CAFOs that Operate On-site Composting Operations

These requirements are consistent with the surface water protection provisions of individual WDRs issued to composting operations in the Region and with the requirements of Title 14, Chapter 3.1 of the California Code of Regulations.

6. Flood Protection and Storm Water Monitoring – Applicable to CAFOs that Operate On-site Composting Operations

These requirements are consistent with the surface water protection provisions of individual WDRs issued to composting operations in the Region, with the State Water Board's General Industrial Storm Water Permit (State Water Board Order 97-03-DWQ), and with the requirements of Title 14, Chapter 3.1 of the California Code of Regulations regarding composting operations.

D. Record Keeping Requirements

The MRP specifies the records that must be kept to document implementation of the required monitoring and management practices specified in the Order. Record keeping requirements for manure transfers are based on requirements established at 40 C.F.R. § 122.42(e)(3) and are consistent with the CAFO regulatory strategy described in the Fact Sheet. Specific record keeping requirements applicable to the production area and land application area at CAFOs that confine dairy cows, cattle, swine, poultry and veal calves are based on requirements established at 40 C.F.R. §§ 412.37 and 122.42(e)(1)(ix). The allowance for recording daily visual inspections of water lines on a weekly basis is based on guidance from USEPA in its *NPDES Permit Writers' Manual for Concentrated Animal Feeding Operations* (EPA-833-F-12-001), (see Appendix J, NPDES General Permit Template for CAFOs).

VII. RATIONALE FOR PROVISIONS

A. Standard Provisions

Standard Provisions, which apply to all NPDES permits in accordance with 40 C.F.R. § 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 C.F.R. § 122.42, are provided in Attachment D. The Discharger must comply with all standard provisions and with those additional conditions that are applicable under 40 C.F.R. § 122.42.

40 C.F.R. §§ 122.41(a)(1) and (b) through (n) establish conditions that apply to all State-issued NPDES permits. These conditions must be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to the regulations must be included in the Order. 40 C.F.R. § 123.25(a)(12) allows the state to omit or modify conditions to impose more stringent requirements. In accordance with 40 C.F.R. § 123.25, this Order omits federal conditions that address enforcement authority specified in 40 C.F.R. §§ 122.41(j)(5) and (k)(2) because the enforcement authority under the Water Code is more stringent. In lieu of these conditions, this Order incorporates by reference Water Code section 13387(e).

B. Special Provisions

1. Reopener Provisions

This provision is based on 40 C.F.R. part 123. The Regional Water Board may reopen the permit to modify permit conditions and requirements. Causes for modifications include the promulgation of new regulations, modification in sludge use

or disposal practices, or adoption of new regulations by the State Water Board or Regional Water Board, including revisions to the Basin Plan.

2. Best Management Practices and Pollution Prevention

To insure that compliance with the effluent limitations and discharge specifications of the proposed Order is achieved, all CAFOs are required to develop, prepare and implement an EWMP. CAFOs that land-apply manure, litter, or process wastewater to land under their control also must develop an NMP. EWMPs and NMPs are to be prepared in accordance with the proposed Order.

In March 1999, USDA and USEPA finalized their unified national strategy for Animal Feeding Operations (AFOs). In general, the national strategy recommended the development of comprehensive nutrient management plans (CNMPs) that were intended to bring each AFO into compliance with the requirements of the CWA and to minimize the impacts to groundwater and surface water from AFO wastes by the implementation of best management practices. In general, a CNMP would assure that appropriate waste storage and handling facilities were designed, constructed and maintained to comply with the requirements of the CWA, and that the use and application of wastewater, litter, and manure (i.e., nutrient management) was managed to minimize impacts to groundwater and surface water. Revisions to the NPDES and ELGs for CAFO regulations published on February 12, 2003, supported this national strategy by requiring the largest CAFOs to develop, prepare and implement NMPs. Subsequent CAFO rule revisions, most recently published on July 30, 2012, continue to require NMPs for all discharging CAFOs. Consistent with the federal CAFO regulations and Order R7-2008-0800, the proposed Order requires the development and implementation of NMPs for Dischargers that apply manure, litter, or process wastewater to land under their control.

40 C.F.R. § 122.42(e)(1) requires all permitted CAFOs to develop NMPs and includes nine minimum elements that each permitted CAFO's NMP must include. The first four of those elements are not directly related to land application of manure, litter, and process wastewater. The proposed Order, like Order R7-2008-0800 establishes those NMP minimum measures as stand-alone permit requirements (see sections IV.E and VII.C.3.a of the proposed Order) that apply to all Dischargers so that separate NMPs must be developed only for land application activities at permitted CAFOs. Note, however, that the proposed Order includes record keeping requirements that address all of the federally-required minimum NMP elements; those records are considered to constitute the NMP elements required by the federal regulations that are not directly related to land application activities. Specifically, the records that address 40 C.F.R. §§ 122.42(e)(1)(i) – (iv) are contained in section X.C.1 of the proposed MRP; those records represent the NMP for Dischargers that do not apply manure, litter, or process wastewater to land under their control.

The NMP minimum measure at 40 C.F.R. § 122.42(e)(1)(i) (ensure adequate storage capacity) requires permitted CAFOs to include in NMPs procedures to ensure proper operation and maintenance of manure, litter, and process wastewater storage facilities. That requirement is reflected in section VII.C.3.a.i(e) of the

proposed Order. Examples of operation and maintenance procedures to help ensure adequate storage capacity include, but are not limited to

- Removal of solids from storage structures as needed to maintain the design storage capacity.
- Removal of manure and wastewater in accordance with the application timing and frequency in the NMP, if applicable, and the structure's design storage capacity.
- Maintaining storage capacity for the 25-year, 24-hour storm, or other design storm event used in sizing the impoundment for no discharge in accordance with the requirements of section IV.B, for the location of the permitted CAFO.
- Preventing plants and burrowing animals from eroding or damaging storage structure berms, embankments, liners, and sidewalls.
- Maintaining vegetation, rock, riprap, or other materials used to prevent erosion and stabilize berms and embankments.
- Conducting the visual inspections required by sections IV.C.1.a and c and corrective actions required by section IV.C.1.d of the proposed Order.

The NMP minimum measure at 40 C.F.R. § 122.42(e)(1)(vi) requires permitted CAFOs to implement site-specific conservation practices to minimize pollutant discharges to waters of the United States. That requirement is reflected in section VII.C.3.b.ii of the proposed Order. Subsection (b) requires Dischargers to incorporate applied manure soon after application or provide appropriate containment. This requirement is intended to minimize the opportunity for applied manure to be transported from the field in surface runoff, through volatilization (of nitrogen), or through wind transport. Incorporation is the preferred method to minimize the potential for nutrient loss through all of those mechanisms. However, the Regional Board recognizes that incorporation of manure is not possible or appropriate under all circumstances. Where manure cannot be incorporated, the Discharger must provide containment, for example by using berms or channels to route stormwater runoff from the field away from waters of the U.S. All such conservation practices used to minimize discharge of pollutants to waters of the U.S. must be identified in the Discharger's NMP.

The proposed Order reflects the 2008 revisions to 40 C.F.R. § 122.42(e)(5) regarding identification of site specific NMP terms to be incorporated as permit conditions. The federal regulations define NMP "terms" as the "information, protocols, best management practices, and other conditions in the NMP determined by the Director to be necessary to meet the requirements" of the required NMP. The regulations allow for two alternative approaches to development of NMP terms. Section VII.C.3.b.iv of the proposed Order incorporates the narrative rate approach presented in 40 C.F.R. § 122.42(e)(5)(ii), as it is the approach identified by USEPA as being providing more flexibility for permitted CAFOs to make nutrient management adjustments throughout the permit term without triggering the need for additional public comment and permit revisions.

The proposed Order also reflects the 2008 CAFO rule revisions regarding changes to NMPs. Because the regulations require specific information in a permitted CAFO's NMP to be identified as site-specific permit terms, the regulations also establish a process for permitting authorities to review changes to the approved NMP to determine whether those changes affect the terms that are permit conditions and, therefore, require a permit modification (40 C.F.R. § 122.42(e)(6)). The NMP change and permit revision process is reflected in section VII.C.3.b.xii of the proposed Order.

The proposed Order requires the development and implementation of engineered waste management plans (EWMPs) for all CAFOs in the Colorado River Basin Region to insure professional design, construction and operation of facility process wastewater and runoff containment systems to prevent prohibited process wastewater discharges to surface waters. The proposed Order authorizes the Executive Officer to make necessary revisions to the guidelines for the preparation of an EWMP. Dischargers with approved EWMPs are advised that the guidelines for the preparation of an EWMP included in Attachment B have been revised to be consistent with the requirements of the proposed Order.

The proposed Order includes requirements that apply to CAFOs with on-site composting operations to relieve these facilities of the need to maintain separate permits for the composting activities. The requirements for on-site composting operations are consistent with the surface water protection provisions of individual WDRs issued to composting operations in the Region and with the requirements of Title 14, Chapter 3.1 of the California Code of Regulations.

The proposed Order requires annual reporting of manure production and the destination of all manure that is generated, animal population statistics, documentation of process wastewater containment system monitoring.

3. Construction, Operation, and Maintenance Specifications

These provisions are consistent with the requirements of Order R7-2008-0800 and are included to implement the requirements of section 22562 of title 27, chapter 7, subchapter 2, article 1 of the California Code of Regulations.

4. Other Special Provisions

Consistent with the CAFO regulatory management strategy described in this Fact Sheet, the proposed Order includes special provisions for tracking manure transfers and compliance with applicable storm water requirements.

VIII. PUBLIC PARTICIPATION

The Colorado River Basin Regional Water Quality Control Board is considering the issuance of WDRs that will serve as a NPDES permit for CAFOs. As a step in the WDR adoption process, the Regional Water Board staff has developed tentative WDRs. The Regional Water Board encourages public participation in the WDR adoption process.

A. Notification of Interested Parties

The Regional Water Board has notified existing Enrollees and interested agencies and persons of its intent to prescribe WDRs for the discharge and has provided them with an opportunity to submit written comments and recommendations. Notification was provided through the Desert Sun and Imperial Valley Press newspapers.

The public had access to the agenda and any changes in dates and locations through the Regional Water Board's website at http://www.waterboards.ca.gov/coloradoriver.

B. Written Comments

Interested persons were invited to submit written comments concerning tentative WDRs as provided through the notification process. Comments were due either in person or by mail to the Executive Office at the Colorado River Basin Regional Water Quality Control Board at 73-720 Fred Waring Drive, Suite 100, Palm Desert, CA 92260.

To be fully responded to by staff and considered by the Regional Water Board, written comments were due at the Regional Water Board office by 5:00 p.m. on **June 17, 2013**.

C. Public Hearing

The Regional Water Board held a public hearing on the tentative WDRs during its regular Board meeting on the following date and time and at the following location:

Date: **June 20, 2013**
Time: **10:00 AM**
Location: **Town of Yucca Valley Community Center**
Yucca Room
57090 Twentynine Palms Highway
Yucca Valley, CA 92284

Interested persons were invited to attend. At the public hearing, the Regional Water Board heard testimony pertinent to the discharge, WDRs, and permit. For accuracy of the record, important testimony was requested in writing.

D. Reconsideration of Waste Discharge Requirements

Any aggrieved person may petition the State Water Board to review the decision of the Regional Water Board regarding the final WDRs. The petition must be received by the State Water Board at the following address within 30 days of the Regional Water Board's action:

State Water Resources Control Board
Office of Chief Counsel
P.O. Box 100, 1001 I Street
Sacramento, CA 95812-0100

For instructions on how to file a petition for review, see http://www.waterboards.ca.gov/public_notices/petitions/water_quality/wqpetition_instr.shtml

E. Information and Copying

The Report of Waste Discharge, other supporting documents, and comments received are on file and may be inspected at the address above at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the Regional Water Board by calling (760) 346-7491.

F. Register of Interested Persons

Any person interested in being placed on the mailing list for information regarding the WDRs and NPDES permit should contact the Regional Water Board, reference this Order, and provide a name, address, and phone number.

G. Additional Information

Requests for additional information or questions regarding this Order should be directed to John Carmona at (760) 340-4521.

California Regional Water Quality Control Board
Colorado River Basin Region (R-7)
73-720 Fred Waring Drive, Suite 100
Palm Desert, CA 92260
(760) 346-7491

Reporting Period: January 1, 20_____ to December 31, 20_____
Report Due Date: February 15, 20_____

PART A – ANNUAL REPORT OF ANIMAL WASTE DISCHARGE

I. Facility Information (Please make corrections directly on this form.)
Operator's Name:
Facility Name:
Facility Address:
Mailing Address:
Telephone Number:
Email Address:

Does the information provided apply only to the facility address indicated above?
☐ Yes ☐No
If No, please provide the name and address of the other facilities in the comment section of this report.
Note: Submit a separate report for each of your facilities including dry cow, heifer, and calf ranches.

II. Type And Number Of Animals

Report the maximum number of each type of animal confined at this facility at any one time (and, for dairies, the number of milkings per day).

Type	Number in Open Confinement	Number Housed Under Roof
Mature Dairy Cows		
Number of milkings per day (dairies only) ☐ One ☐ Two ☐ Three		
Dairy Heifers		
Veal Calves		
Other Cattle		
Swine (55 lb. or more)		
Swine (under 55 lb.)		
Horses		
Sheep or Lambs		
Turkeys		
Chickens (broilers)		
Chickens (layers)		
Ducks		
Other: (specify): _____		

III. Manure, Litter, And Process Wastewater Production

Report the estimated amount of manure, litter, and process wastewater that were generated at this facility during the 12-month reporting period identified at the top of this report.

A. Amount of manure generated during the reporting period: _____ tons.
B. Amount of manure generated during the reporting period that is stockpiled on site as of 12/31/20____: _____ tons
C. Amount of litter generated during the reporting period: _____ tons.
D. Amount of process wastewater generated during the reporting period: _____ gallons.

Were the production factors provided below used to estimate your manure information?

Provided Production Factors	Productions Factors Used		Provide Other Production Factor, if used
Beef cattle produce approximately 1.5 tons per animal per year of manure.	☐Yes	☐No	
1 Milking cow produces approximately 4.1 tons per year of manure.	☐Yes	☐No	
1 Dry cow produces approximately 4.1 tons per year of manure.	☐Yes	☐No	
1 Heifer produces approximately 1.5 tons per year of manure.	☐Yes	☐No	
1 Calf produces 0.6 tons per year of manure.	☐Yes	☐No	
1 ton of corral manure equals 2.32 cubic yards.	☐Yes	☐No	
1 cubic yard of corral manure equals 0.43 tons.	☐Yes	☐No	

IV. Manure, Litter, and Process Wastewater Transferred to Other Persons

Report the estimated amount of manure, litter, and process wastewater that were transferred to other persons during the 12-month reporting period identified at the top of this report.

A. Amount of manure transferred during the reporting period: _____ tons.
B. Amount of litter transferred during the reporting period: _____ tons.
C. Amount of process wastewater transferred during the reporting period: _____ gallons.

V. Summary of Production Area Discharges

Report all discharges of manure, litter, and process wastewater from the production area to waters of the United States during the 12-month reporting period.

Date of Discharge	Time of Discharge	Estimated Volume

VI. Instances of Noncompliance Not Previously Reported

During the reporting period were there any instances of noncompliance which have not been reported to the permitting authority? _____ Yes _____ No

If yes, please provide the information requested below.

- ☐ Description of the noncompliance and its cause.
- ☐ The period that the operation was in noncompliance with permit conditions, including exact dates and times.
- ☐ In those cases where noncompliance has not been corrected, the anticipated time it is expected to continue.
- ☐ Description of the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

VII. Certification of Preparation of Inspection Logs And Manifests

- ☐ I certify that a CAFO Stormwater Management Structure Inspections Log has been prepared for and is maintained at this facility.
- ☐ I certify that a Water Line Inspections Log has been prepared for and is maintained at this facility.
- ☐ I certify that a Manure Tracking Manifest has been prepared for each manure hauling event that have occurred at this facility (Large CAFOs only).

PART B – COMPOSTING INVENTORY

☐ **I certify that no composting occurs at this facility.** (If box is checked, skip to Part C.)

	January	February	March	April	May	June	July	August	September	October	November	December
I. Materials Monitoring												
Quantity (tons) and description of manure received from each source												
Quantity (tons) and description of greenwaste received from each source												
Quantity (tons) and description of fertilizer received from each source												
Quantity of composted material (tons) shipped off-site												
Estimated quantities of raw materials, in-process-inventory and finished												
II. Flood Protection Monitoring[1]												
The Discharger shall inspect all internal and external flood protection facilities at least quarterly and following each storm which generates any storm water flow through the drainage system. Indicate whether these inspections were conducted for each quarter.												

[1] If significant damage to the flood protection facilities is found, the Discharger shall report this information to the Regional Water Board immediately by telephone, and transmit by letter within five business days of its occurrence the following information:

a. Location and extent of damage;
b. Interim measures to be taken to assure that no wastes are discharged from the facility; and
c. Time schedule for repairs.

III. Storm Water Monitoring

1. Did any storm water discharge(s) occur from the composting operations? ☐ Yes ☐ No
2. If yes, attach the results of all storm water discharge analyses to this report and/or explain why any storm water discharges from the composting operations were not analyzed for the required parameters:

   ☐ Check if analysis results are attached.

   If any storm water discharges from the composting operations were not analyzed for the required parameters, explain below:

IV. Operation and Maintenance
Document any erosion control or drainage problems and/or related maintenance:

PART C – LAND APPLICATION OF MANURE, LITTER, AND PROCESS WASTEWATER REPORT

☐ **I certify that no land application of manure, litter, and/or process wastewater occurs at this facility.** (If box is checked, skip to Part D.)

I. Nutrient Management Plan

Indicate whether the facility's Nutrient Management Plan (NMP) was either prepared or approved by a certified nutrient management planner. *Note: The Regional Water Board does not require CAFO owners or operators to use a certified nutrient management planner to prepare or approve NMPs.*

Was the current version of this facility's NMP prepared or approved by a certified nutrient management planner? _____ Yes _____ No

II. Acres Used for Land Application

Report the total number of acres of land that are covered by this facility's NMP. Include all land application acres covered by the NMP, whether or not they were used for land application during the reporting period.

A. Total number of land application acres covered by the NMP: _____ acres.

Report the total number of acres of land where manure, litter, or process wastewater generated at this facility was spread. Include only land application areas that are under the control of this CAFO facility.

B. Total number of acres under the control of the CAFO used for land application during the reporting period: _____ acres.

III. Nutrient Analyses

Report the nutrient content of the manure, litter, and process wastewater that was applied during the reporting period. Report the results that were used to calculate nutrient application rates for the crops that were harvested during the reporting year. Attach additional sheets if needed.

Source sampled[a]	Sample date[b]	Analytical Results			
		NH_4-N	TKN	TP	Units[c]

a. Identify the manure type (e.g., liquid, slurry, solid, compost, litter, etc.) that was sampled and the storage structure sampled (if more than one structure used to store that type of manure). Use a separate line for each unique source. The source identification should correspond to those used in the approved NMP.

b. Indicate the date of the sample results reported.

c. Indicate the reporting units (i.e., mg/L, mg/kg, lb/ton, or lb/1,000 gallons).

Report the results of the most recent soil nutrient analyses used in calculating nutrient application rates for the crops harvested during the reporting year. If soil is not analyzed for nitrogen, report the calculated amount of plant available nitrogen in each field used to determine land application rates. Attach additional sheets if needed.

Field ID[a]	Sample Date[b]	Analytical Results						Calculated	
		Soluble P			Nitrogen[e]				
		Result	Units[c]	Method[d]	Result	N form[f]	Units[c]	PAN[g]	Units[c]

a. List all fields where manure, litter, or process wastewater was applied during the reporting period. The field ID should correspond to those used in the approved NMP.

b. Indicate the date of the sample results reported.

c. Indicate the reporting units (i.e., mg/kg or lbs/acre).

d. Indicate the extraction method used.

e. Note that the permit does not require soil nitrogen analysis. Report the results if soil nitrogen analyses if they were conducted.

f. Indicate the nitrogen form analyzed. Use multiple rows for multiple forms of N.

g. Indicate the calculated amount of plant available nitrogen in the soil, if soil nitrogen analyses were not used in calculating nutrient application rates.

IV. Crop Growing Activity and Land Application

For each field where manure, litter, or wastewater was applied, report the actual crops grown in each field, the actual yield achieved, the amount of manure, litter, or wastewater planned to be applied and the actual amount of manure, litter, and wastewater applied. Report the information for the crop year ending during the 12-month reporting period. Attach additional sheets if needed.

Field ID[a]	Crop(s) Grown[b]	Yield[c]	Yield Units[d]	Planned Manure to be Applied[e]				Actual Manure Applied[f]			
				Solid	Compost	Liquid	Other[g]: _____	Solid	Compost	Liquid	Other[g]: _____
				Tons	Tons	Gallons	_____	Tons	Tons	Gallons	_____
				Tons	Tons	Gallons	_____	Tons	Tons	Gallons	_____
				Tons	Tons	Gallons	_____	Tons	Tons	Gallons	_____
				Tons	Tons	Gallons	_____	Tons	Tons	Gallons	_____
				Tons	Tons	Gallons	_____	Tons	Tons	Gallons	_____
				Tons	Tons	Gallons	_____	Tons	Tons	Gallons	_____

Field ID[a]	Crop(s) Grown[b]	Yield[c]	Yield Units[d]	Planned Manure to be Applied[e]				Actual Manure Applied[f]			
				Solid	Compost	Liquid	Other[g]: _____	Solid	Compost	Liquid	Other[g]: _____
				Tons	Tons	Gallons	_____	Tons	Tons	Gallons	_____
				Tons	Tons	Gallons	_____	Tons	Tons	Gallons	_____
				Tons	Tons	Gallons	_____	Tons	Tons	Gallons	_____
				Tons	Tons	Gallons	_____	Tons	Tons	Gallons	_____
				Tons	Tons	Gallons	_____	Tons	Tons	Gallons	_____

a. List all fields where manure, litter, or process wastewater was applied during the reporting period. The field ID should correspond to those used in the approved NMP.

b. List all crops grown (harvested during the reporting period) in each field during the reporting period.

c. Report the actual yield achieved for each crop in each field.

d. Report the per-acre yield units (e.g., tons/acre, bushels/acre)

e. Report the calculated amount of manure, litter, or wastewater to be applied, determined in accordance with the methodology and terms of the approved NMP.

f. Report the actual amount of manure, litter, or wastewater applied.

g. If “Other” is selected, write in the type of manure, litter, or wastewater to be applied.

For each field where manure, litter, or wastewater was applied, report the spreadable acres and the amount of total nitrogen and phosphorus applied per acre from commercial fertilizer during the 12-month reporting period. Attach additional sheets if needed.

Field ID[a]	Spreadable Acres	Commercial Nitrogen Applied (as N)	Commercial Phosphorus Applied (as P)
		Pounds/Acre	Pounds/Acre
		Pounds/Acre	Pounds/Acre
		Pounds/Acre	Pounds/Acre
		Pounds/Acre	Pounds/Acre
		Pounds/Acre	Pounds/Acre
		Pounds/Acre	Pounds/Acre
		Pounds/Acre	Pounds/Acre
		Pounds/Acre	Pounds/Acre
		Pounds/Acre	Pounds/Acre
		Pounds/Acre	Pounds/Acre
		Pounds/Acre	Pounds/Acre
		Pounds/Acre	Pounds/Acre

a. List all fields where manure, litter, or process wastewater was applied during the reporting period. The field ID should correspond to those used in the approved NMP.

PART D – GROUNDWATER MONITORING REPORT

Attach the results of quarterly groundwater monitoring conducted in accordance with the CAFO's approved groundwater monitoring program, if required by the Regional Water Board. Check the appropriate box(es) below.

☐ A groundwater monitoring program is required for this facility.

- ☐ Monitoring results are attached.
- ☐ Monitoring results are not attached. Explain: _____

_____

_____

_____

_____

☐ Not applicable. A groundwater monitoring program is not required for this facility.

PART E – CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direct supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage this system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: _____ Date: _____

Title: _____

Print Name: _____

Submit by: February 15, 20_____

Submit to: California Regional Water Quality Control Board
Colorado River Basin Region
73-720 Fred Waring Drive, Suite 100
Palm Desert, CA. 92260

Manure Tracking Manifest
Colorado Regional Water Quality Control Board

Instructions

1. Complete one manifest for each hauling event, for each destination. A hauling event may last for several days, as long as the manure is being hauled to the same destination.
2. If there are multiple destinations, complete a separate form for each destination.
3. The operator must obtain the signature of the hauler upon completion of each manure hauling event.
4. The operator shall maintain manure tracking manifests on site at the permitted facility.

Operator Information

Name of Operator:

Name of Facility:

Facility Address:

Mailing Address:

Phone Number:

Manure Hauler Information

Name of Hauling Company and Contact Person:	Phone Number:

Destination information

Hauled to (please check one):	Dates Hauled:
☐ Composting Facility ☐ Regional Digester ☐ Riverside County ☐ San Bernardino County ☐ Imperial County ☐ San Diego County ☐ Other County/State: (Please list below) _____	_____ Please give name and location of the composting operation, or, if the manure was hauled to cropland, the owner or tenant, and the destination address, or nearest cross streets. _____ _____

Please enter the amount in the box below and circle the appropriate units:

Amount removed from Facility	**Amount Composted**	**Amount to Digester**
Tons or Cubic Yards	Tons or Cubic Yards	Tons or Cubic Yards

Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Operator's Signature:_____ Date:_____

Hauler's Signature:_____ Date:_____

CAFO Weekly Storm Water and Wastewater Management Structure and Daily Water Lines Inspections Log Sheet

Facility Name: _____ NPDES Permit No.: CAG017001

Instructions: Use this form to keep track of weekly visual inspections of your wastewater and storm water management structure(s) (including storm water and runoff diversion devices, and devices used to channel contaminated storm water to a wastewater storage or containment structure) and daily water line inspections (including drinking water lines and cooling water lines). List the items that need to be inspected below.

_____ _____

_____ _____

_____ _____

_____ _____

Keep track of your inspections in the following table by filling out one row each week when you inspect your storm water management structures and water lines. Provide the following information:

- ✓ the date of the inspection
- ✓ the initials of the inspector
- ✓ check the "OK" box if no problems were found
- ✓ use the "Notes" column to describe problems, if you find any, and how they might be fixed
- ✓ fill in the "date corrected" column with the date when you correct the problem
- ✓ check the box indicating daily water line inspections were conducted

	Date	**Initials**	**OK** (✓ if no problems found)	**Notes** (Note any problems found and possible solutions.)	**Date Corrected**	**Daily Inspections Conducted?** (Yes/No)
Week 1						
Week 2						
Week 3						
Week 4						

	Date	Initials	OK (✓ if no problems found)	Notes (Note any problems found and possible solutions.)	Date Corrected	Daily Inspections Conducted? (Yes/No)
Week 5						
Week 6						
Week 7						
Week 8						
Week 9						
Week 10						
Week 11						
Week 12						
Week 13						
Week 14						
Week 15						
Week 16						
Week 17						

	Date	Initials	OK (✓ if no problems found)	Notes (Note any problems found and possible solutions.)	Date Corrected	Daily Inspections Conducted? (Yes/No)
Week 18						
Week 19						
Week 20						
Week 21						
Week 22						
Week 23						
Week 24						
Week 25						
Week 26						
Week 27						
Week 28						
Week 29						
Week 30						

	Date	Initials	OK (✓ if no problems found)	Notes (Note any problems found and possible solutions.)	Date Corrected	Daily Inspections Conducted? (Yes/No)
Week 31						
Week 32						
Week 33						
Week 34						
Week 35						
Week 36						
Week 37						
Week 38						
Week 39						
Week 40						
Week 41						
Week 42						
Week 43						

	Date	Initials	OK (✓ if no problems found)	Notes (Note any problems found and possible solutions.)	Date Corrected	Daily Inspections Conducted? (Yes/No)
Week 44						
Week 45						
Week 46						
Week 47						
Week 48						
Week 49						
Week 50						
Week 51						
Week 52						

California Regional Water Quality Control Board
Colorado River Basin Region (R-7)
73-720 Fred Waring Drive, Suite 100
Palm Desert, CA 92260
(760) 346-7491

Discharge Notification Form

Facility Name: _____ NPDES Permit No.: CAG017001

If you have a discharge from the production area or land application area(s):

1. Call the Governor's Office of Emergency Services (800) 852-7550 and the Regional Water Quality Control Board (760) 346-7491 as soon as:
   a. You know about the discharge,
   b. Notification is possible, and
   c. You can provide notification without substantially impeding cleanup or other emergency measures.
2. Within 24 hours, submit a certification to the Regional Water Board that you have notified the Office of Emergency Services and the local health officer or directors of environmental health with jurisdiction over the affected water bodies.
3. Keep a record of the approximate date, time, duration, location, description, and volume of the discharge.
4. Conduct discharge monitoring and receiving water monitoring as described in the MRP (sections IV.A, VIII.A and B, and IX.F)
5. Submit this form to the Regional Water Board within 5 days of the discharge, as required by section XI.D of the Monitoring and Reporting Program.

Describe each discharge of manure, litter, and/or process wastewater from the production area or land application area(s) under the ownership or operational control of the Discharger (except agricultural stormwater discharges). Attach additional sheets, if needed.

Date[a]	Time[b]	Duration[c]	Location[d]	Description[e]	Volume[f]

[a] **Date:** The date of the discharge. If the discharge was detected after it happened, give an estimate of the date when the discharge occurred.
[b] **Time:** The time of the discharge. If the discharge was detected after it happened, give an estimate of the time when the discharge occurred.
[c] **Duration:** The duration of the discharge.
[d] **Location:** The location of the discharge to waters of the U.S. Be specific. Include the name of the water body, and a specific description of where the manure, litter, or process wastewater entered the water body. Include landmarks or other points of reference (e.g., Three Mile Creek, at southeast corner of feedlot where creek bends to the west).
[e] **Description:** Provide other relevant information about the discharge, including the source, cause, composition (e.g., emergency overflow of process wastewater from lagoon #2), and impacts observed (e.g., fish kill in waterbody).
[f] **Volume:** Give an estimate of the number of gallons or tons of manure, litter, or process wastewater discharged.

Provide analytical results from each discharge of manure, litter, and/or process wastewater that occurred during the reporting period. Attach additional sheets, if needed.

Parameter	Units	Result	Method Detection Level (MDL)
Volume	Gallons or Acre-Inches		
Nitrate-Nitrogen	mg/L		
Total Kjeldahl Nitrogen	mg/L		
Phosphorus, Total	mg/L		
Dissolved Oxygen	mg/L		
Total Dissolved Solids	mg/L		
Total Suspended Solids	mg/L		
E. coli	MPN/100 ml		
Fecal Coliform	MPN/100 ml		
Enterococcus[1]	MPN/100 ml		
[1.] For discharges to the New River			

Provide analytical results from the receiving water for each discharge of manure, litter, and/or process wastewater that occurred during the reporting period. Attach additional sheets, if needed.

Upstream (monitoring location RSW-001)

Describe monitoring location: _____

_____

_____

_____

Parameter	Units	Result	Method Detection Level (MDL)
pH	Standard Units		
Temperature	°F		
Dissolved Oxygen	mg/L		
Nitrate-Nitrogen	mg/L		
Total Kjeldahl Nitrogen	mg/L		
Phosphorus, Total (as P)	mg/L		
Total Dissolved Solids	mg/L		
Total Suspended Solids	mg/L		
E. coli	MPN/100 mL		
Fecal Coliform	MPN/100 mL		
Enterococcus1	MPN/100 mL		
[1.] For discharges to the New River			

Downstream (monitoring location RSW-002)

Describe monitoring location: _____

_____

_____

_____

Parameter	Units	Result	Method Detection Level (MDL)
pH	Standard Units		
Temperature	°F		
Dissolved Oxygen	mg/L		
Nitrate-Nitrogen	mg/L		
Total Kjeldahl Nitrogen	mg/L		
Phosphorus, Total (as P)	mg/L		
Total Dissolved Solids	mg/L		
Total Suspended Solids	mg/L		
E. coli	MPN/100 mL		
Fecal Coliform	MPN/100 mL		
Enterococcus1	MPN/100 mL		
[1.] For discharges to the New River			

If you have a discharge from the composting operations:

1. Keep a record of the approximate date, time, duration, location, description, and volume of the discharge.
2. Conduct discharge monitoring as described in the MRP (sections IV.A and IX.F)
3. Submit this form to the Regional Water Board within 5 days of the discharge, as required by section XI.D of the Monitoring and Reporting Program.

Provide analytical results from each discharge of storm water from composting operations. Attach additional sheets, if needed.

Parameter	Units	Result	Method Detection Level (MDL)
Total Suspended Solids	mg/L		
pH	pH units		
Specific Conductance	µmhos/cm		
Total Organic Carbon[1]	mg/L		
Iron[2]	mg/L		
Nitrate+Nitrite Nitrogen[2]	mg/L		
Lead[2]	µg/L		
Zinc[2]	µg/L		
Phosphorus, Total[2]	mg/L		
[1] Oil and grease may be substituted for total organic carbon. [2,]Additional analytical parameters required under State Water Board Industrial Storm Water Permit (NPDES CAS000001) for activities only under SIC 287X.			

Notice of Intent (NOI)
for Concentrated Animal Feeding Operations (CAFOs)
to Continue Coverage Under Board Order R7-2013-0800
(NPDES No. CAG017001)

This form is to be submitted by owners or operators of CAFOs enrolled under Board Order R7-2008-0800 who wish to continue coverage under Board Order R7-2013-0800. If you do not discharge and do not wish to continue coverage, you must submit a Notice of Termination.

I. Facility and Contact Information

Facility Name: _____
Facility Address: _____
City, State, ZIP: _____

Operator Name: _____
Mailing Address: _____
City, State, ZIP: _____
Operator Telephone: _____
Email: _____

Owner Name: _____
Owner Address: _____
City, State, ZIP: _____
Owner Telephone: _____
Email: _____

II. Concentrated Animal Feeding Operation Requirements

☐ The NOI and previously submitted documents for compliance with the previous CAFO general permits comply with the new CAFO general permit R7-2013-0800.

OR

☐ The following information needs to be updated to meet the requirements for coverage under the R7-2013-0800 CAFO general permit:
- ☐ Engineered Waste Management Plan (II.A.1, VII.C.3.c, Attachment B)
- ☐ Nutrient Management Plan (II.A.1, V.C.2.a, VII.C.3.b., Attachment C)
- ☐ Revised NMP (VII.C.3.b.xii)
- ☐ Composting Site Survey (VII.C.3.d.iii)
- ☐ Report of Facility Modification (VII.C.2.c.iv)
- ☐ Antidegradation Analysis for Expansion of Existing Facility (VII.C.4.f)

For any out-of-date items identified above, please provide current information and attach with this NOI. Identify the data item (section and question number) in the most recently-submitted NOI that is being updated. Attach additional sheets and/or map if needed.

Data Item	Current Information

III. Certification

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. Name and Official Title	B. Phone No.
C. Signature	D. Date Signed